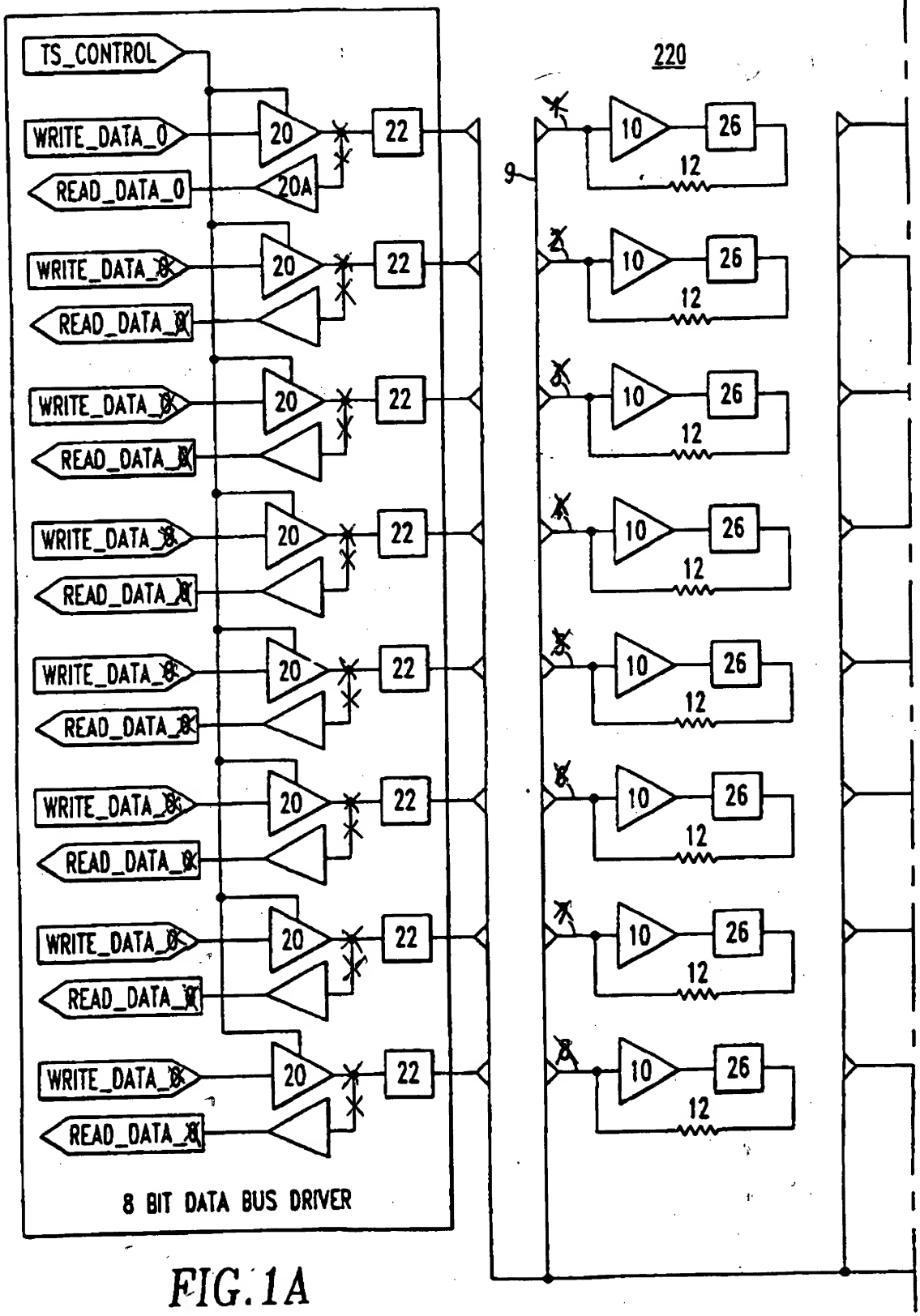


FIG. 1A

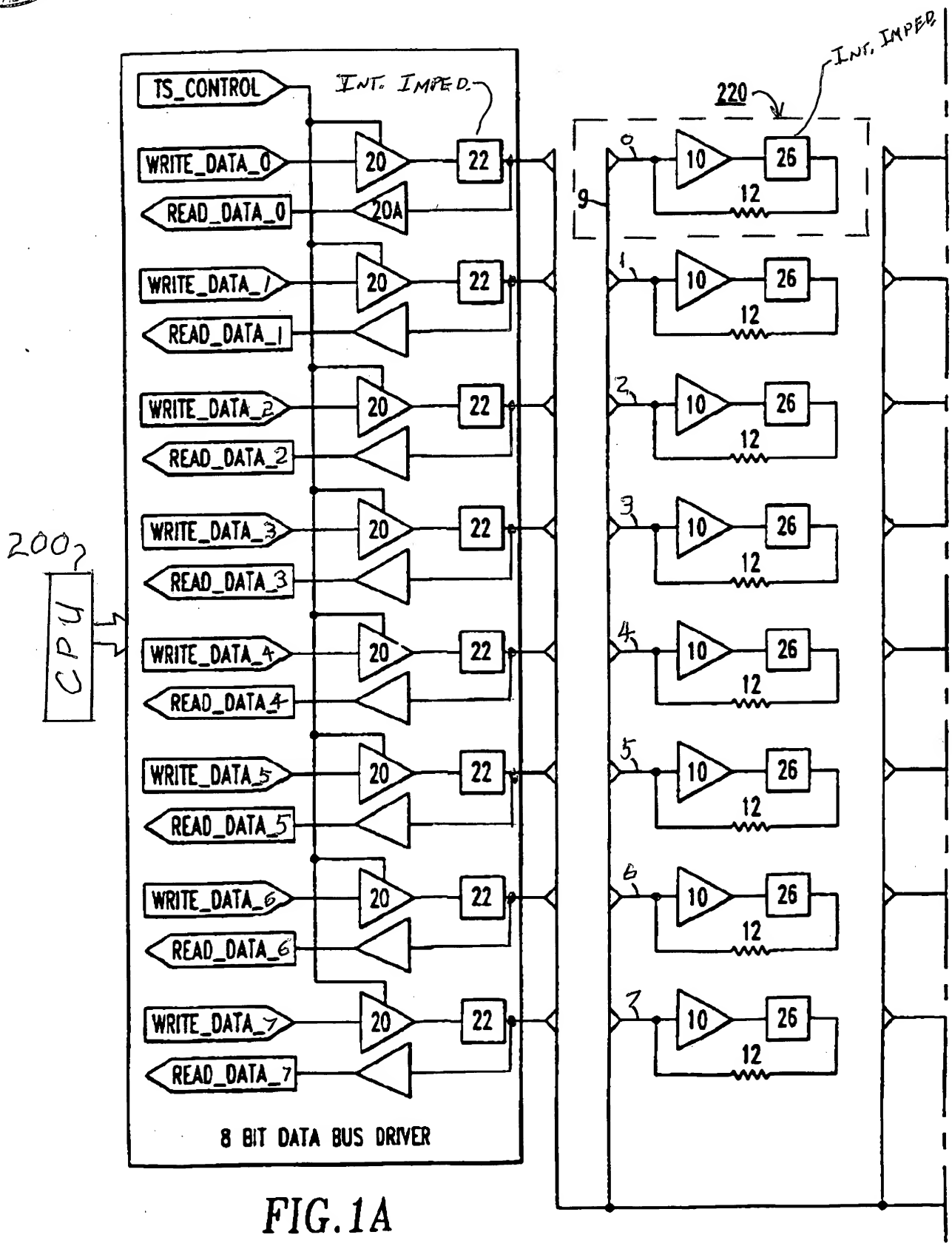


FIG. 1A

FIG. 1B

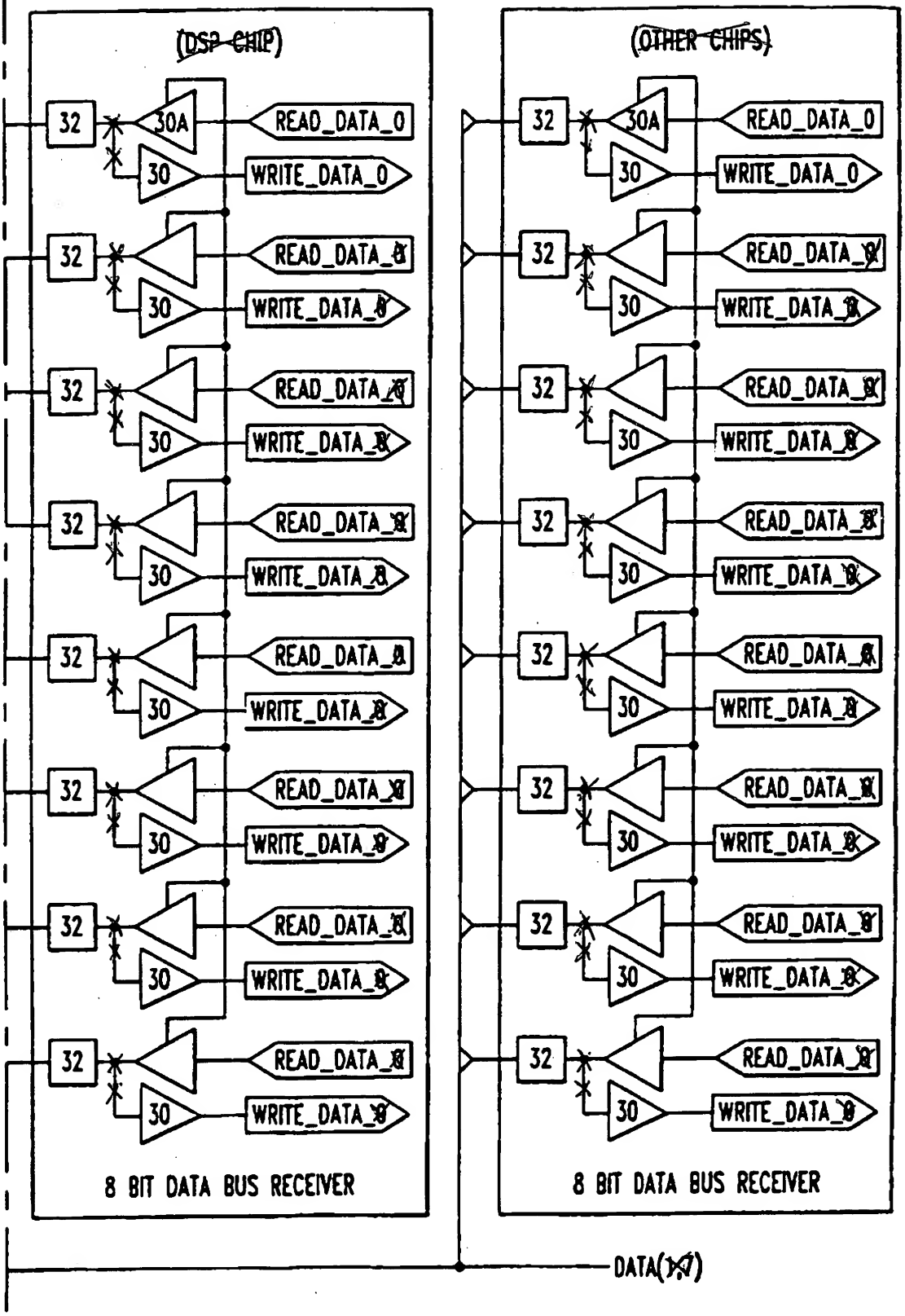
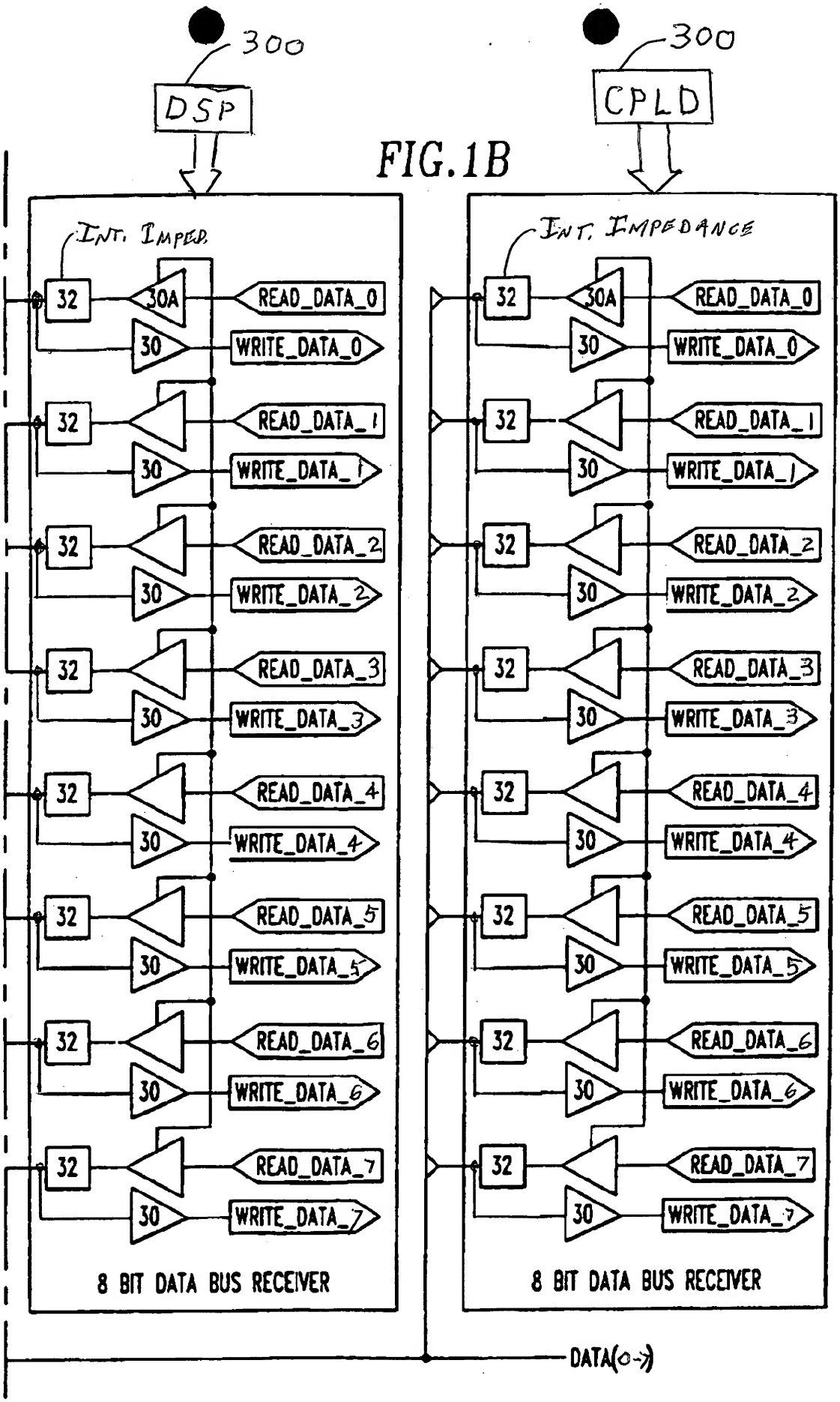


FIG.1B



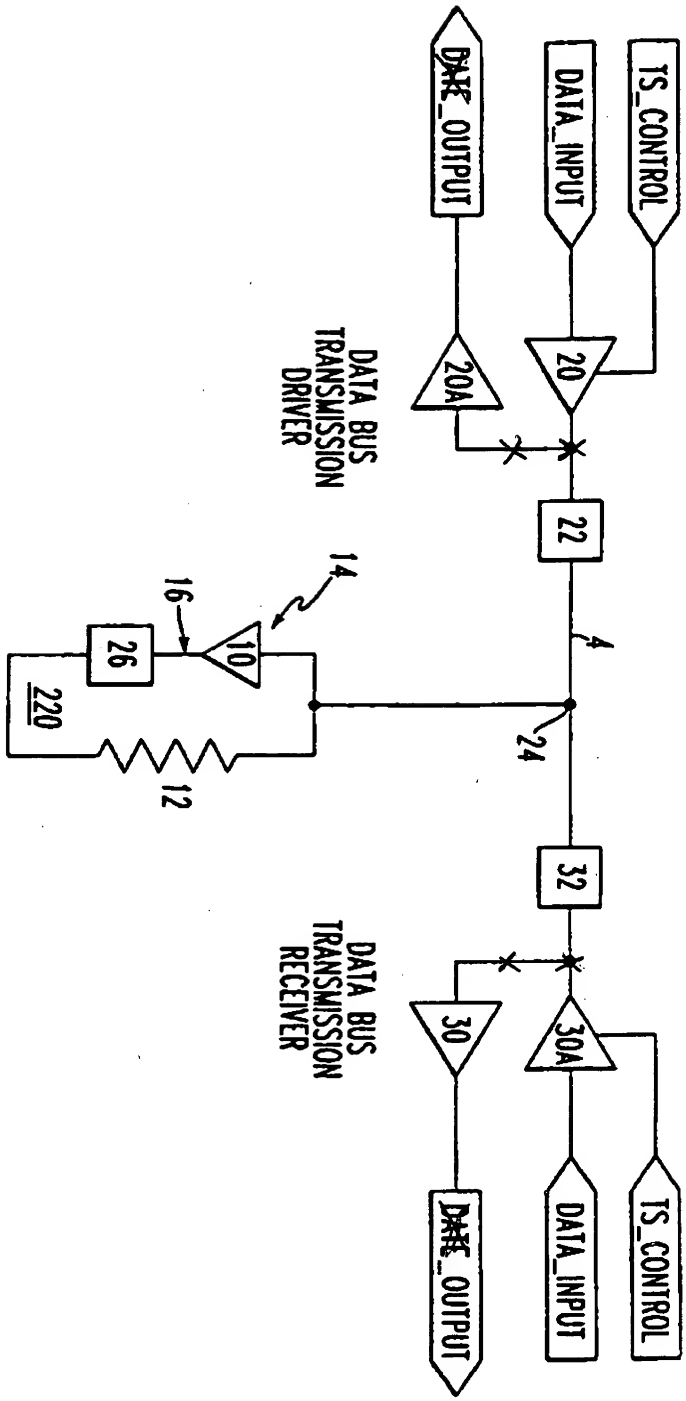


FIG.2

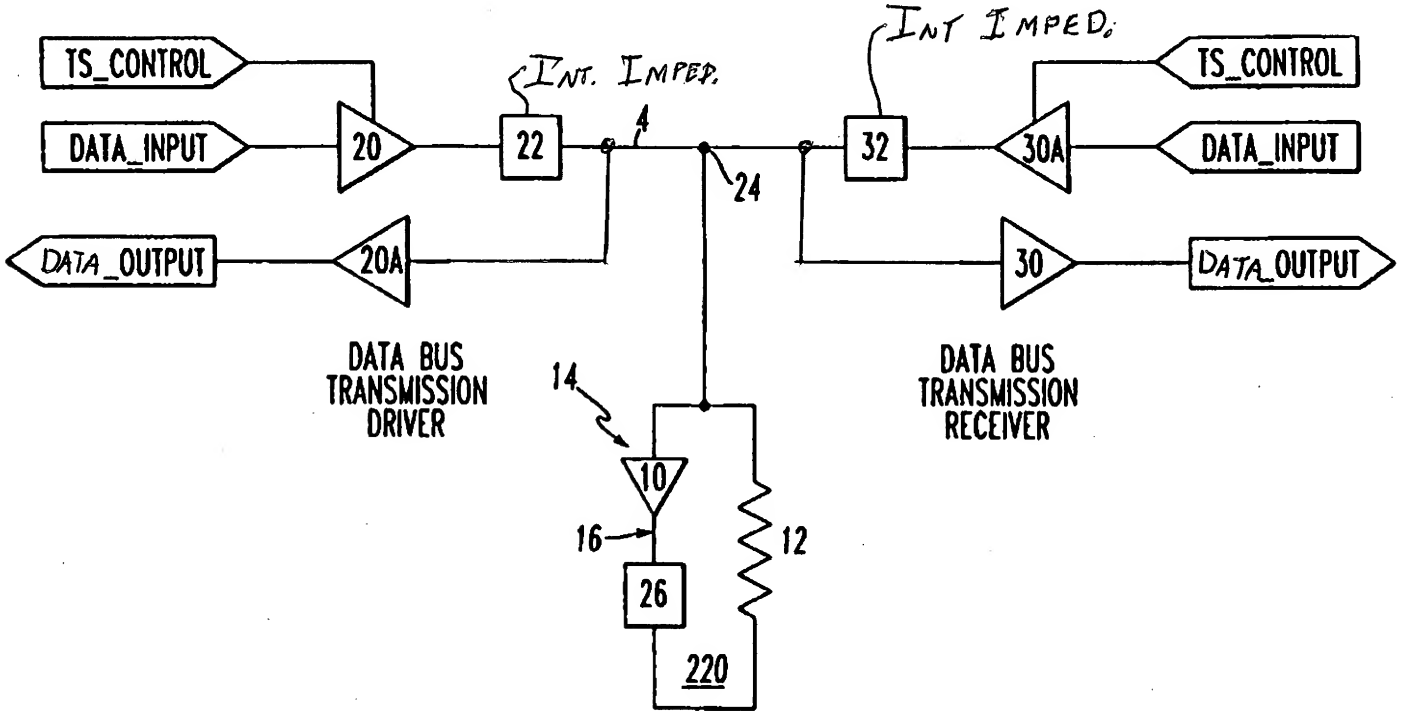


FIG.2

FIGURE 3A
(Prior Art)

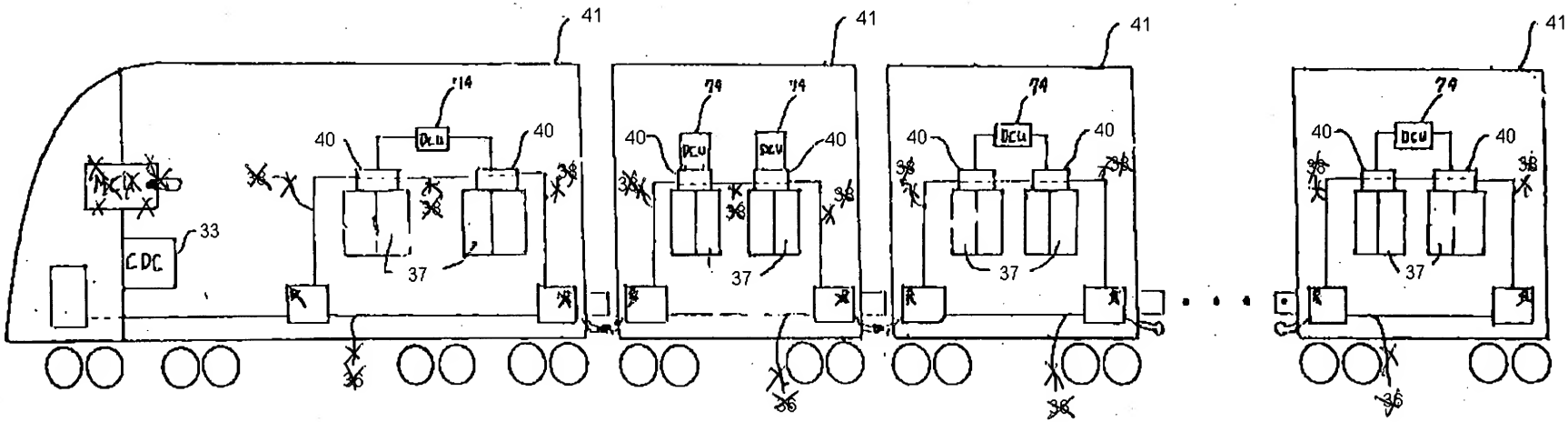


FIGURE 3A
(Prior Art)

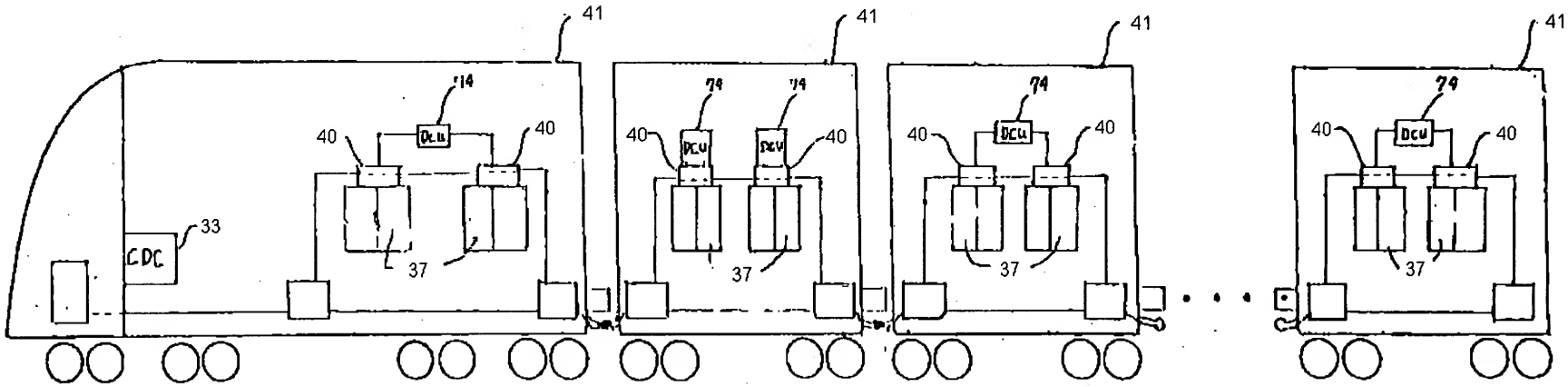


FIGURE 3B

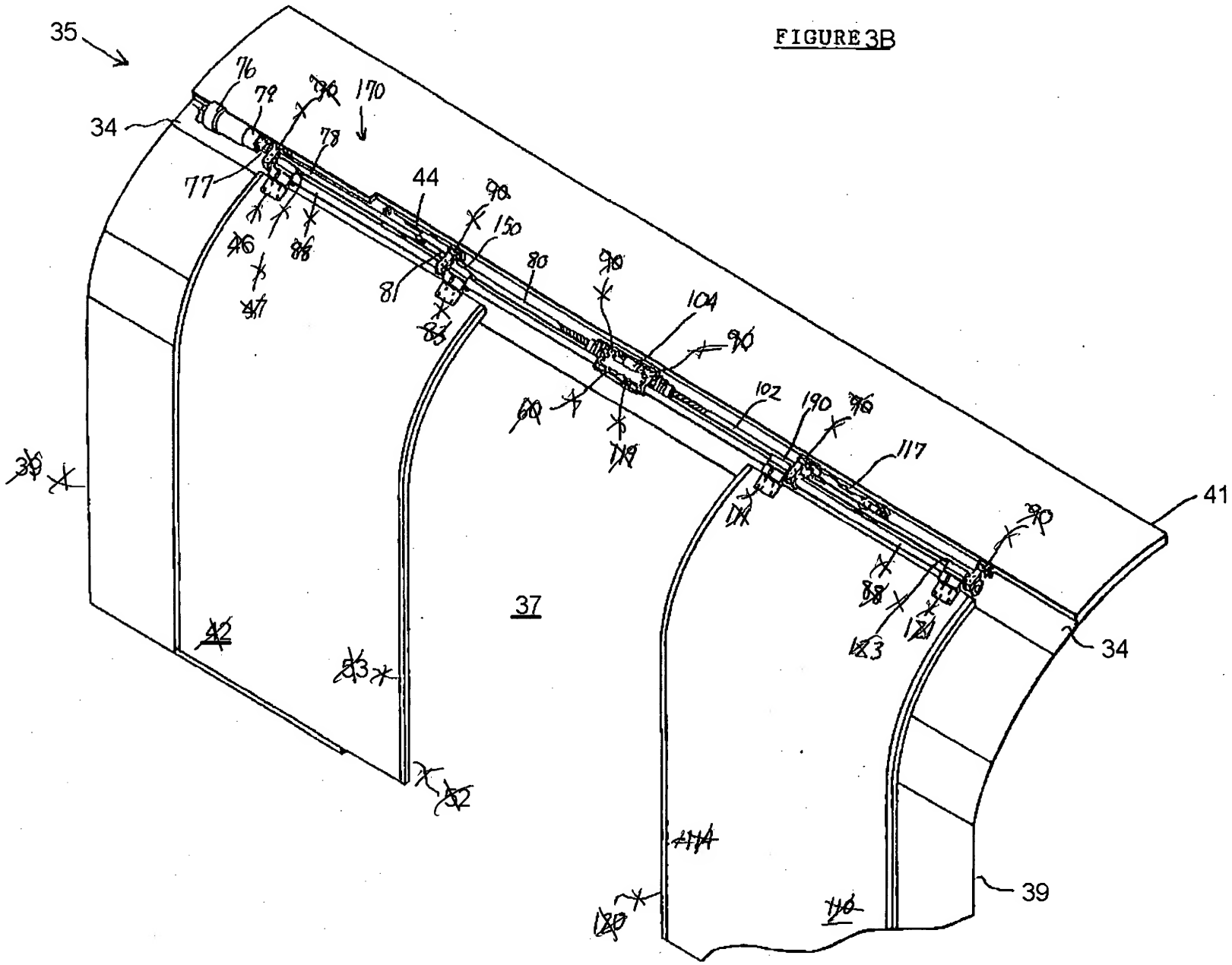


FIGURE 3B

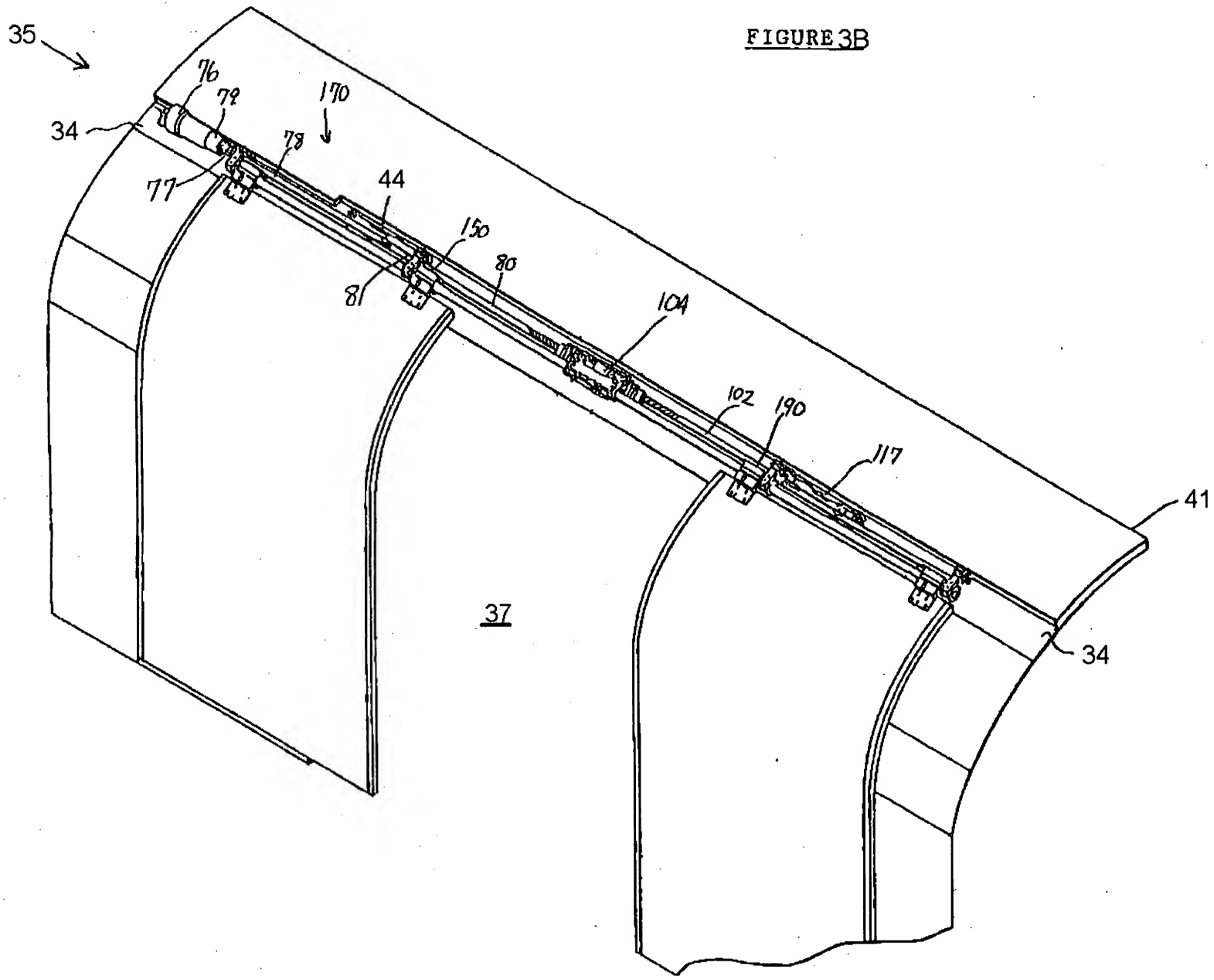


FIGURE 3C

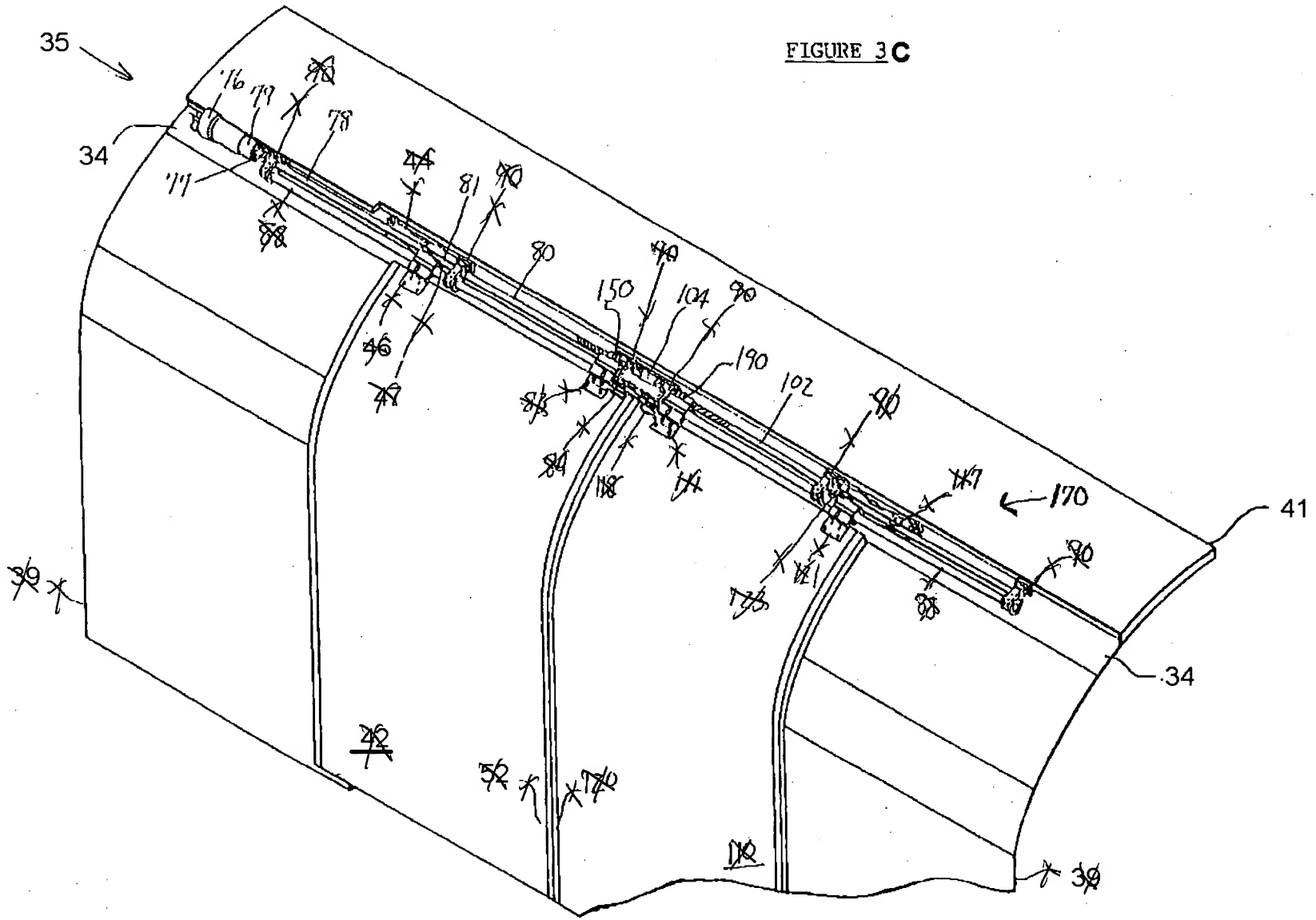


FIGURE 3C

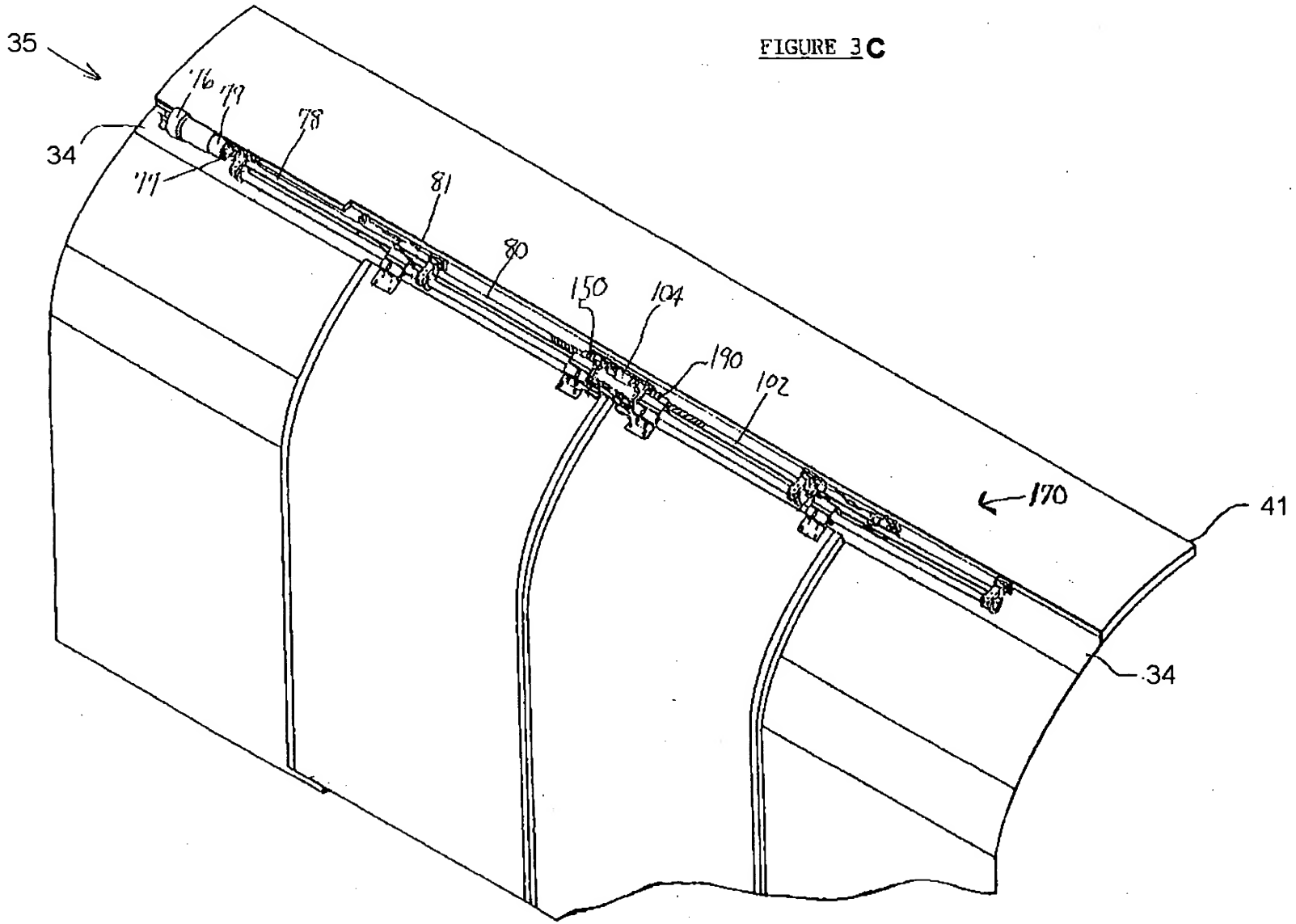
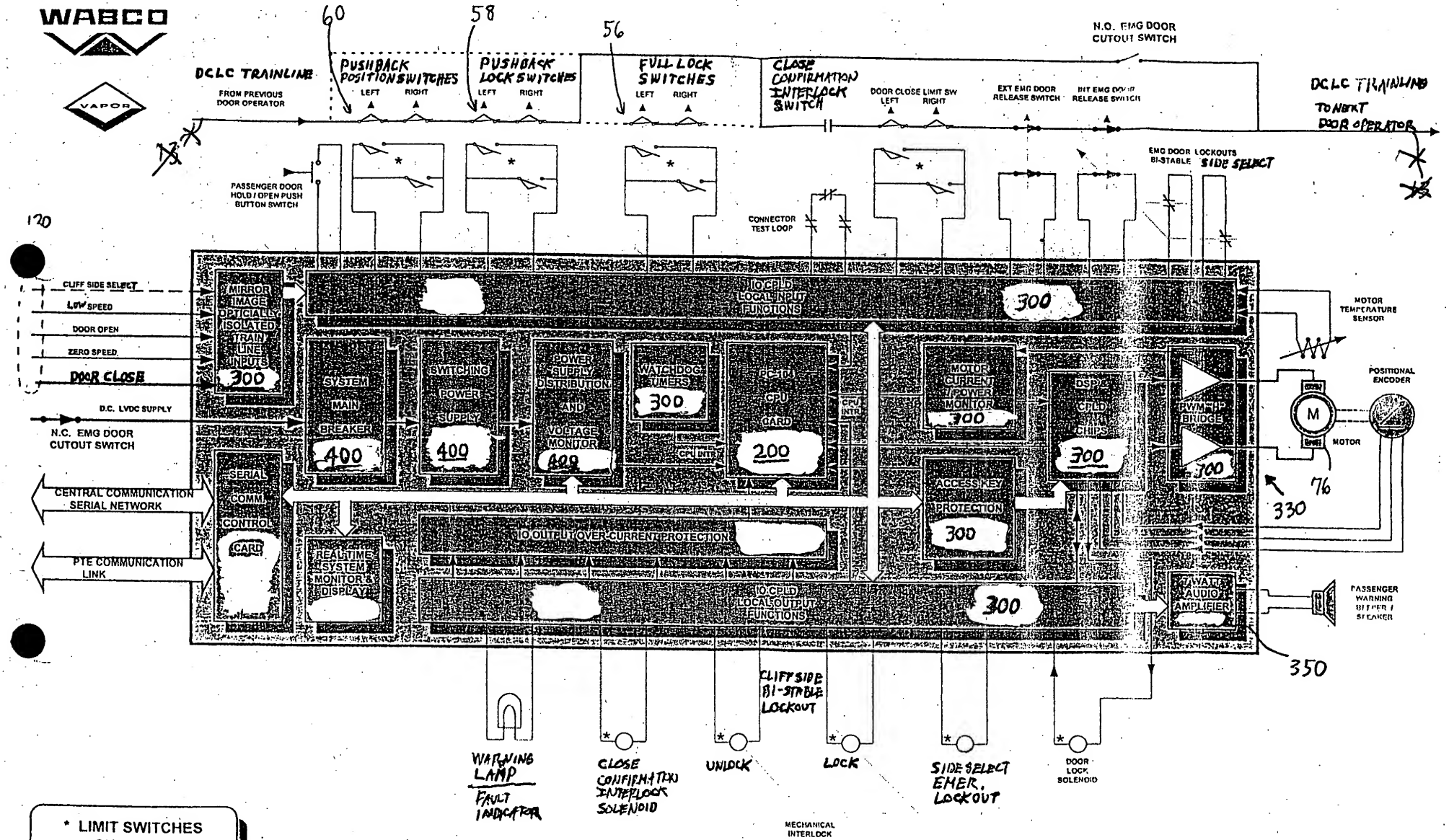


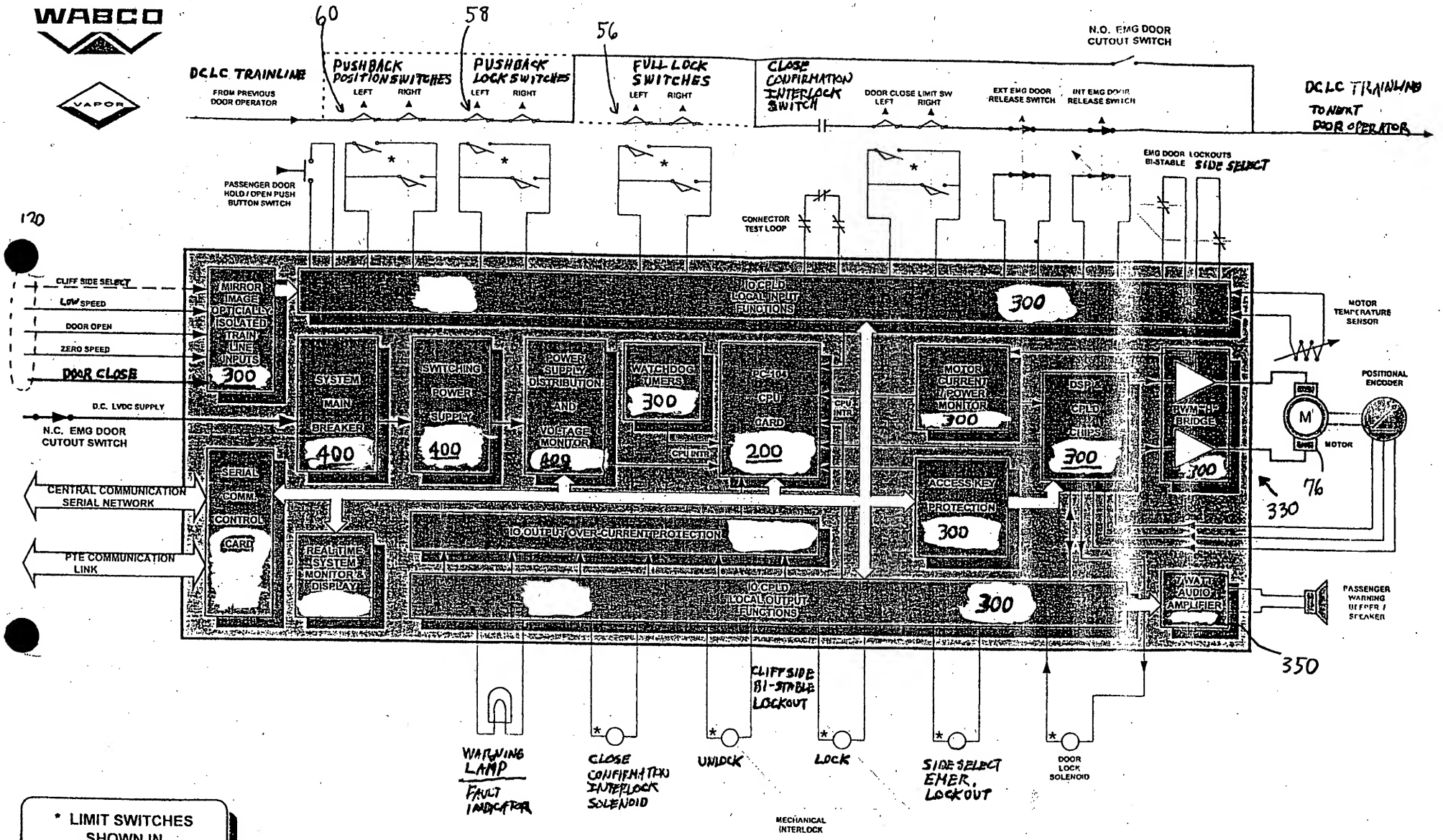
FIGURE 8



* LIMIT SWITCHES SHOWN IN DOOR CLOSED SYSTEM UNPOWERED POSITION

IDCU
SYSTEM BLOCK DIAGRAM

FIGURE 4



* LIMIT SWITCHES SHOWN IN DOOR CLOSED SYSTEM UNPOWERED POSITION

IDCU

SYSTEM BLOCK DIAGRAM

FIGURE 3A

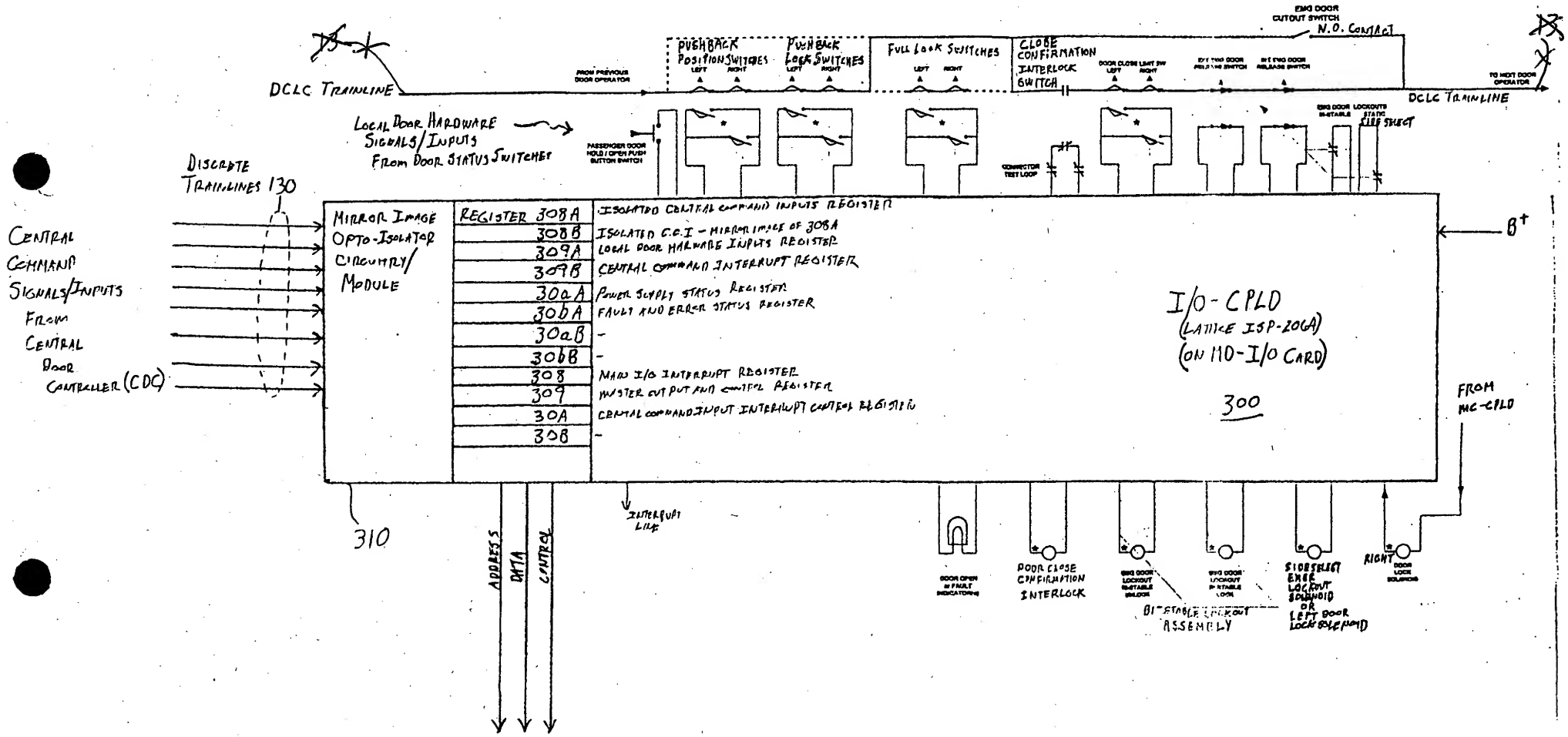


FIGURE 5A

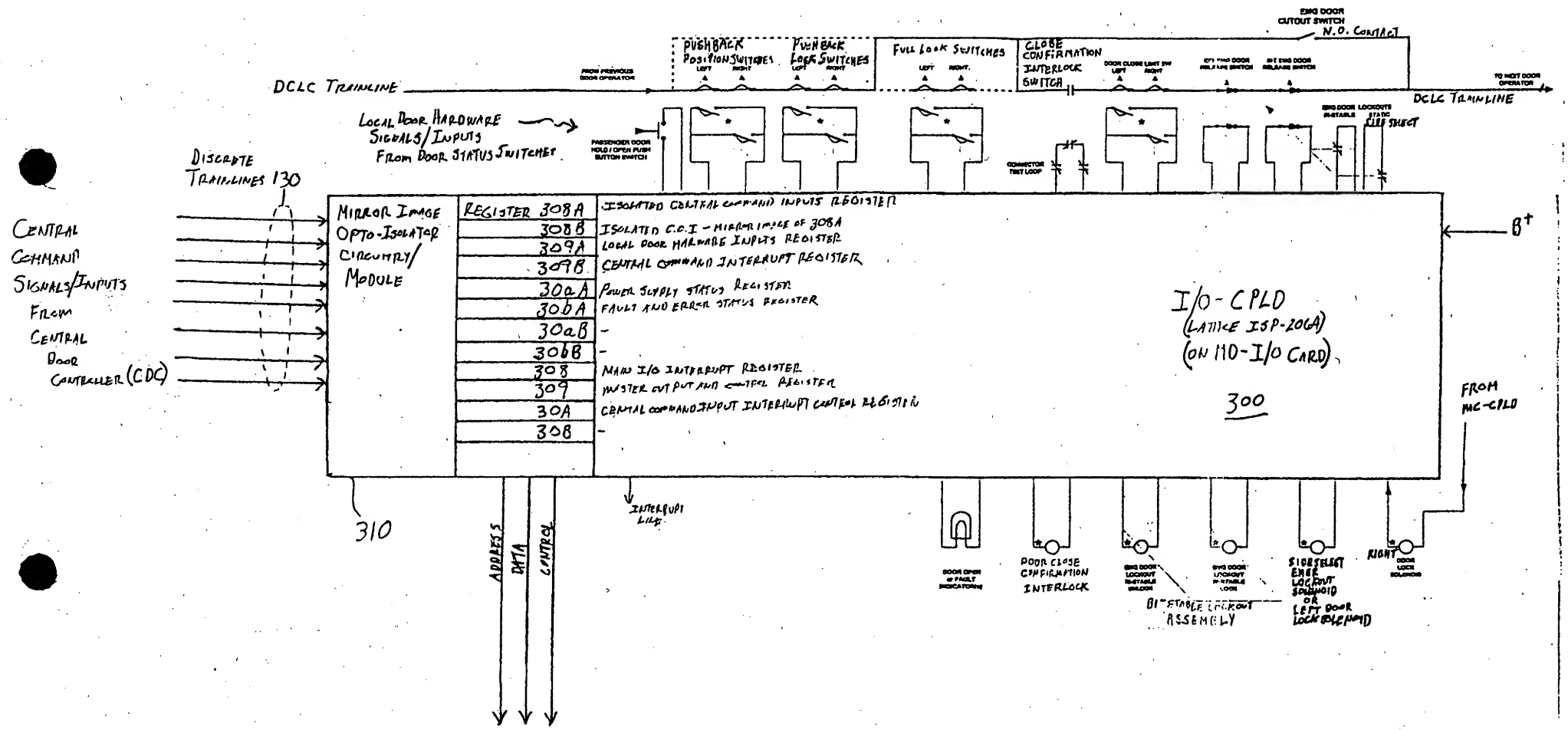


FIGURE 7B

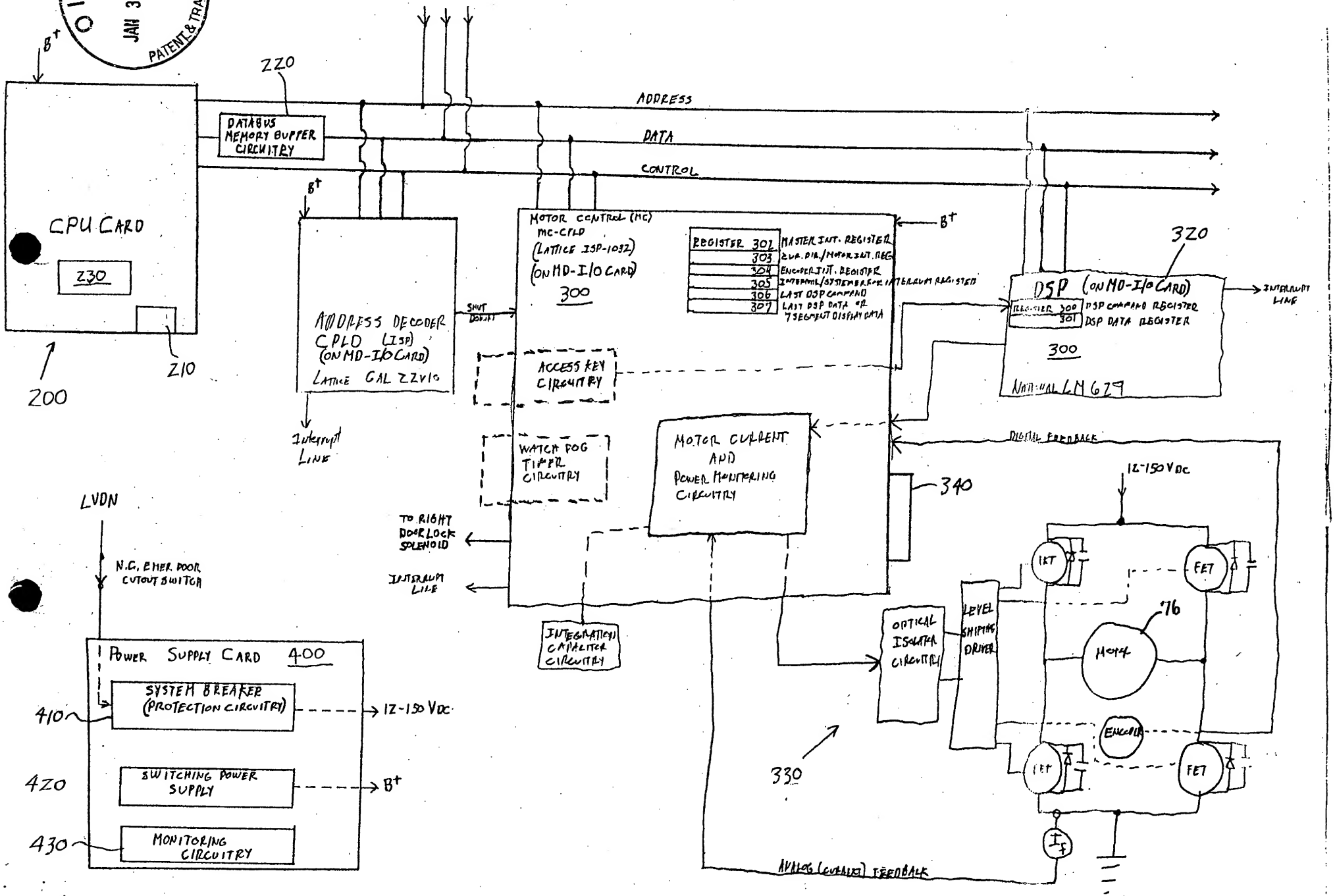


FIGURE 5B

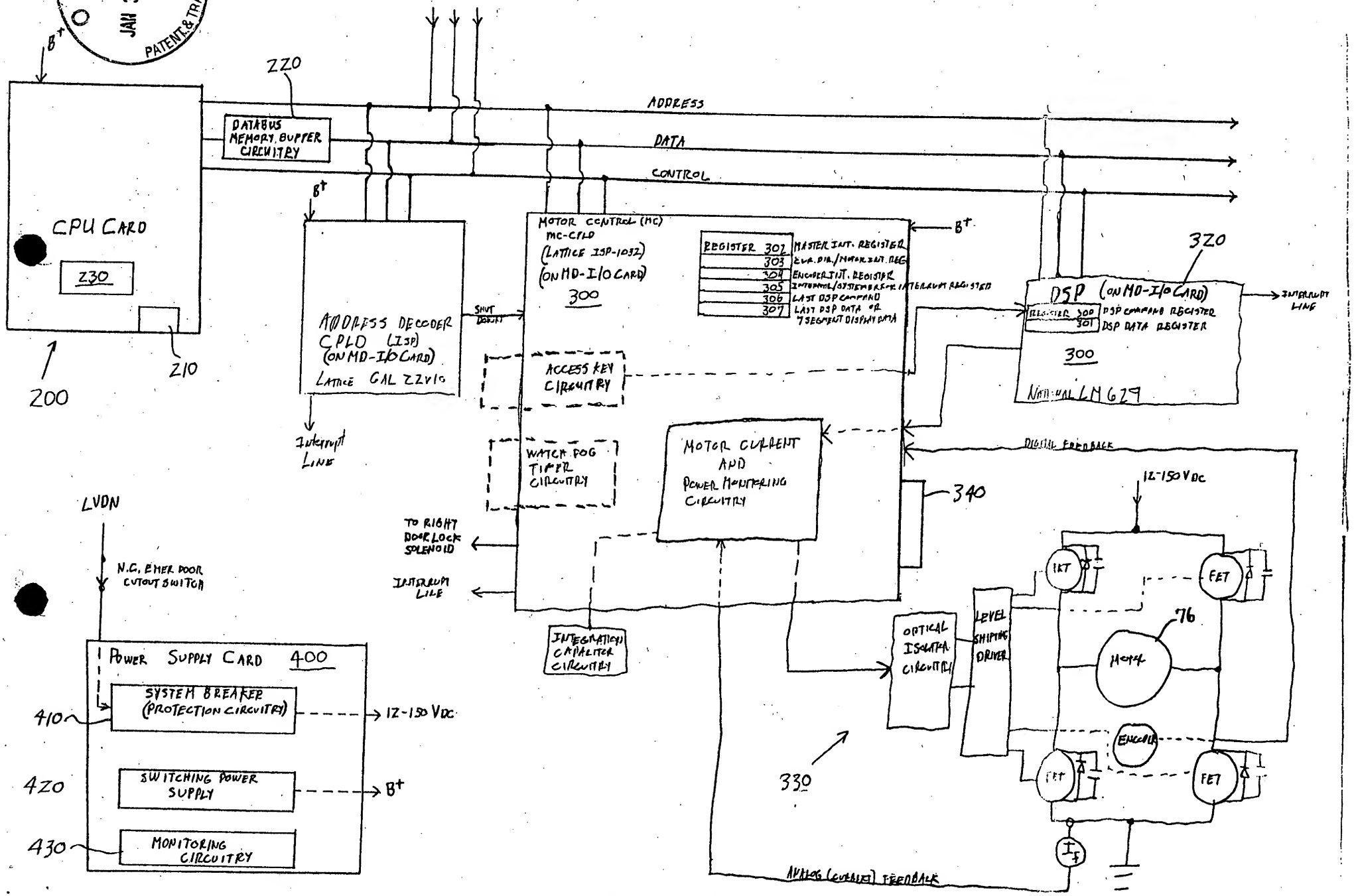


FIGURE 8

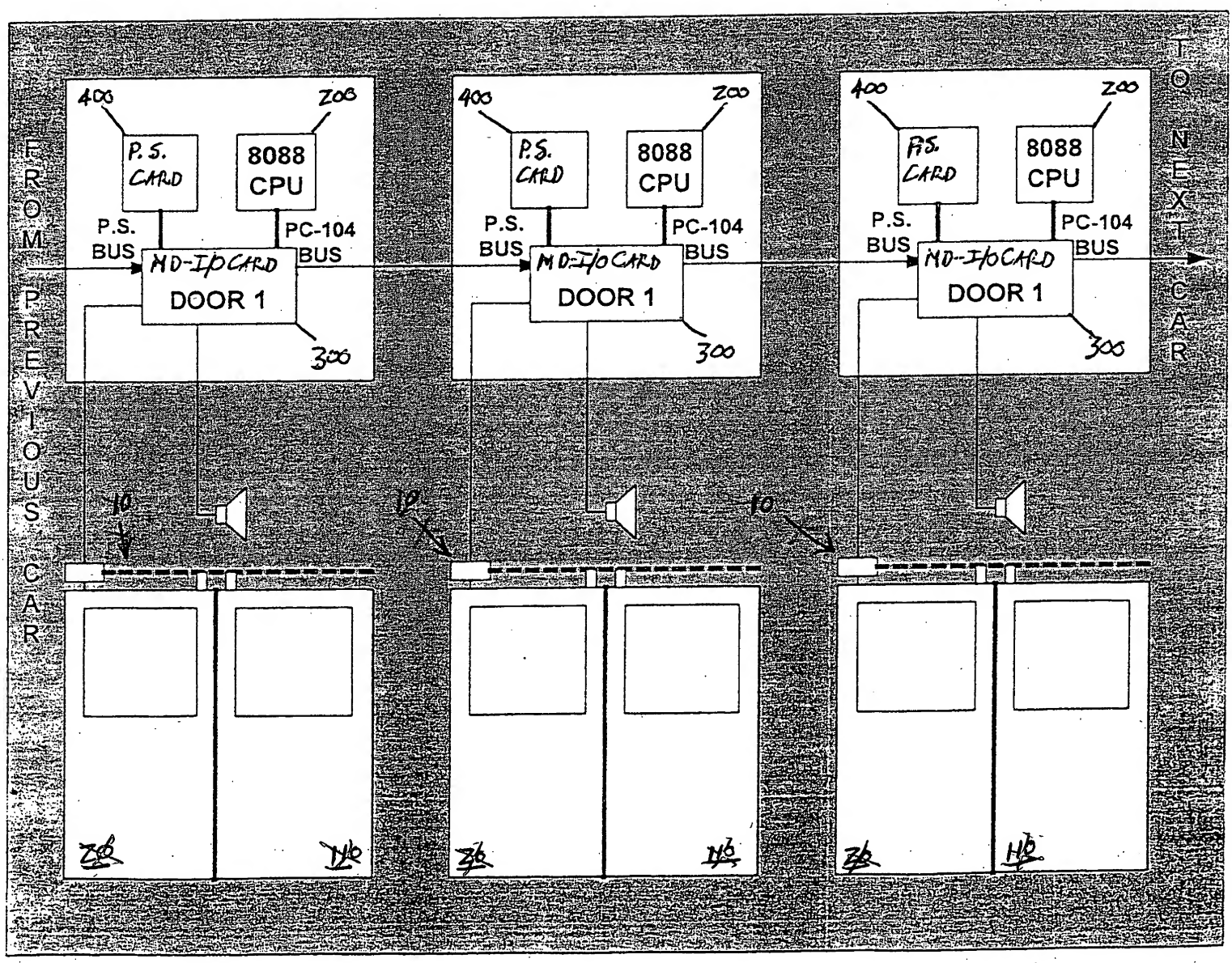


FIGURE 6

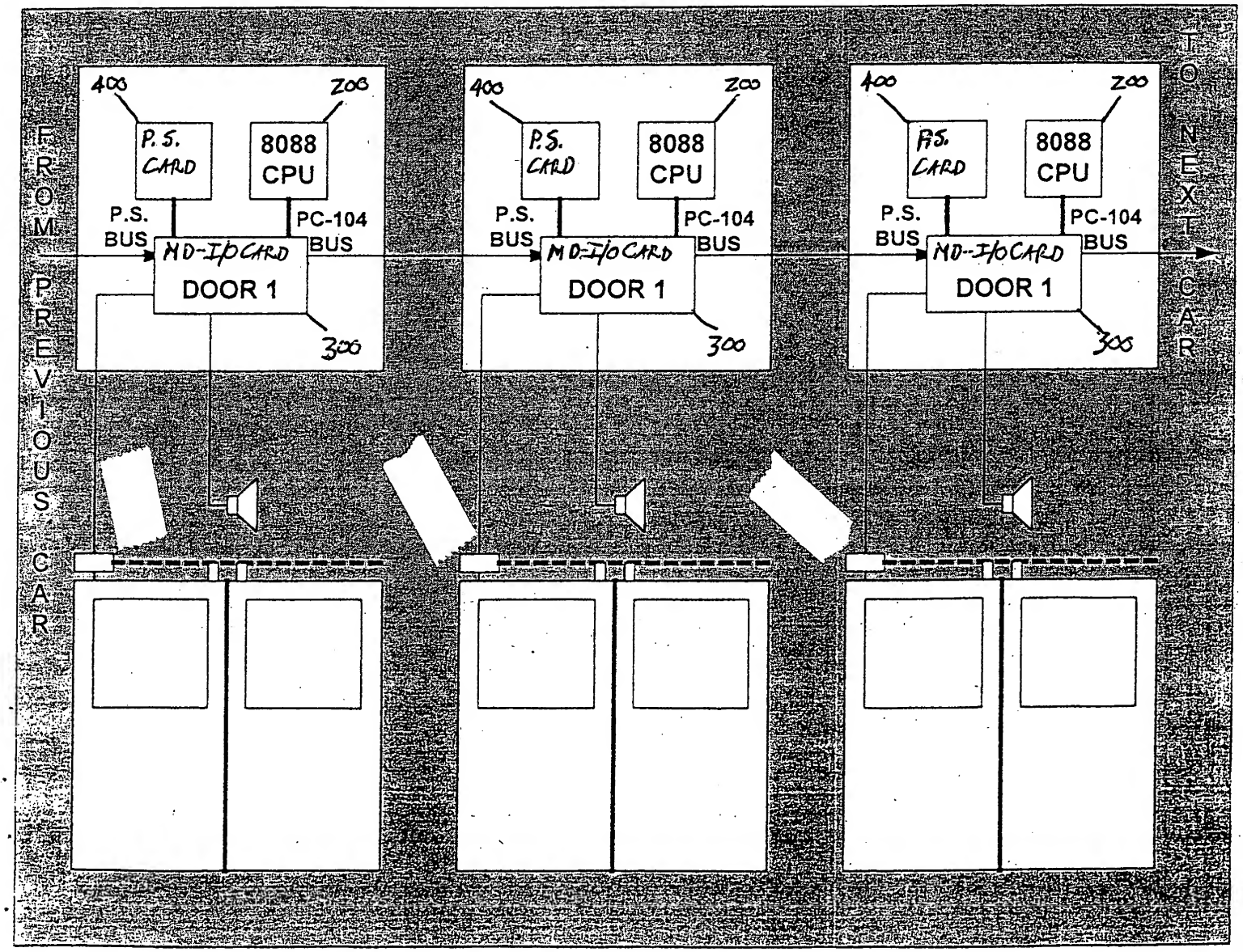


FIGURE 9

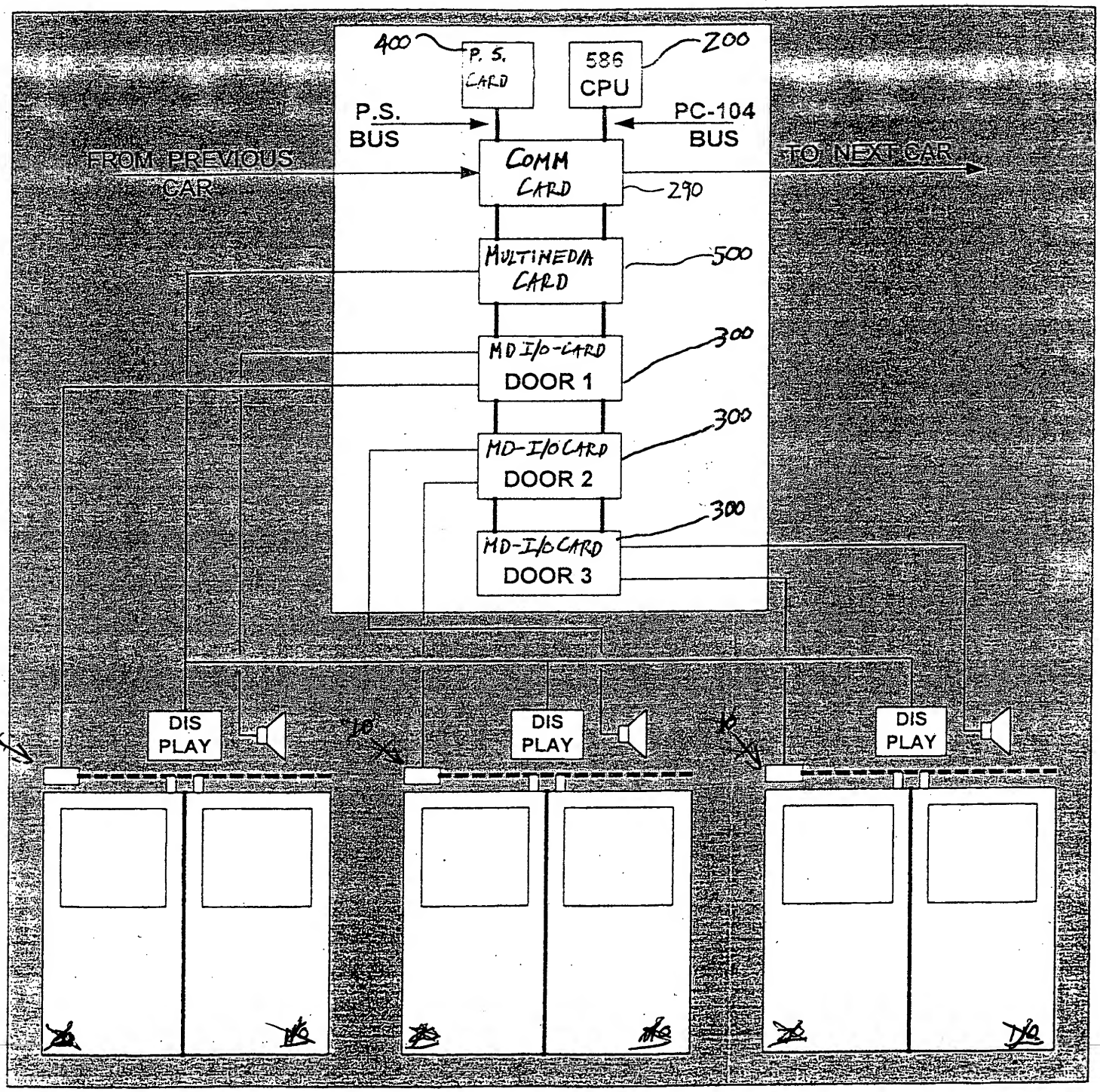


FIGURE 7

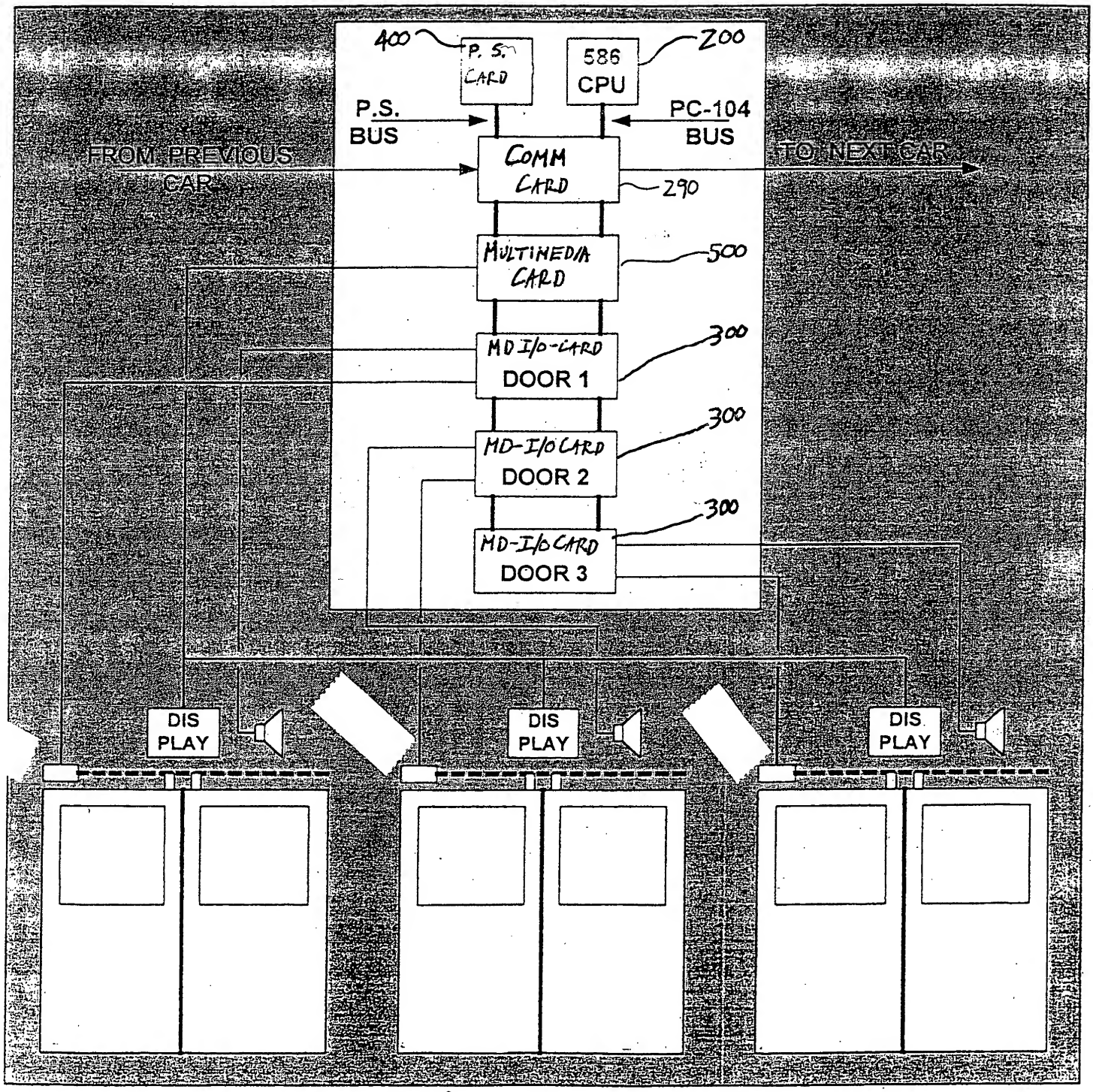


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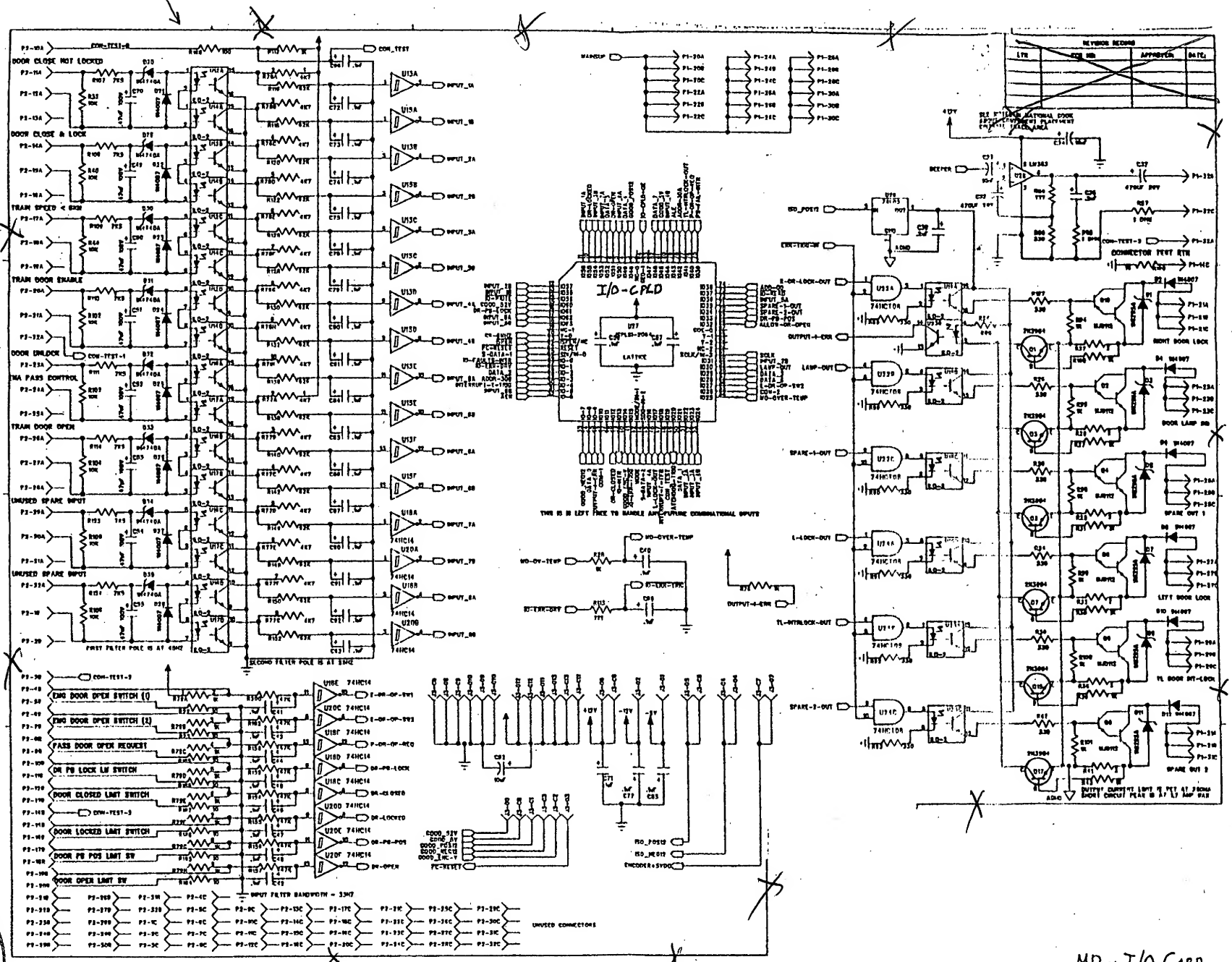
FIGURE 10A



MD - I/O CARD
LAYOUT 1

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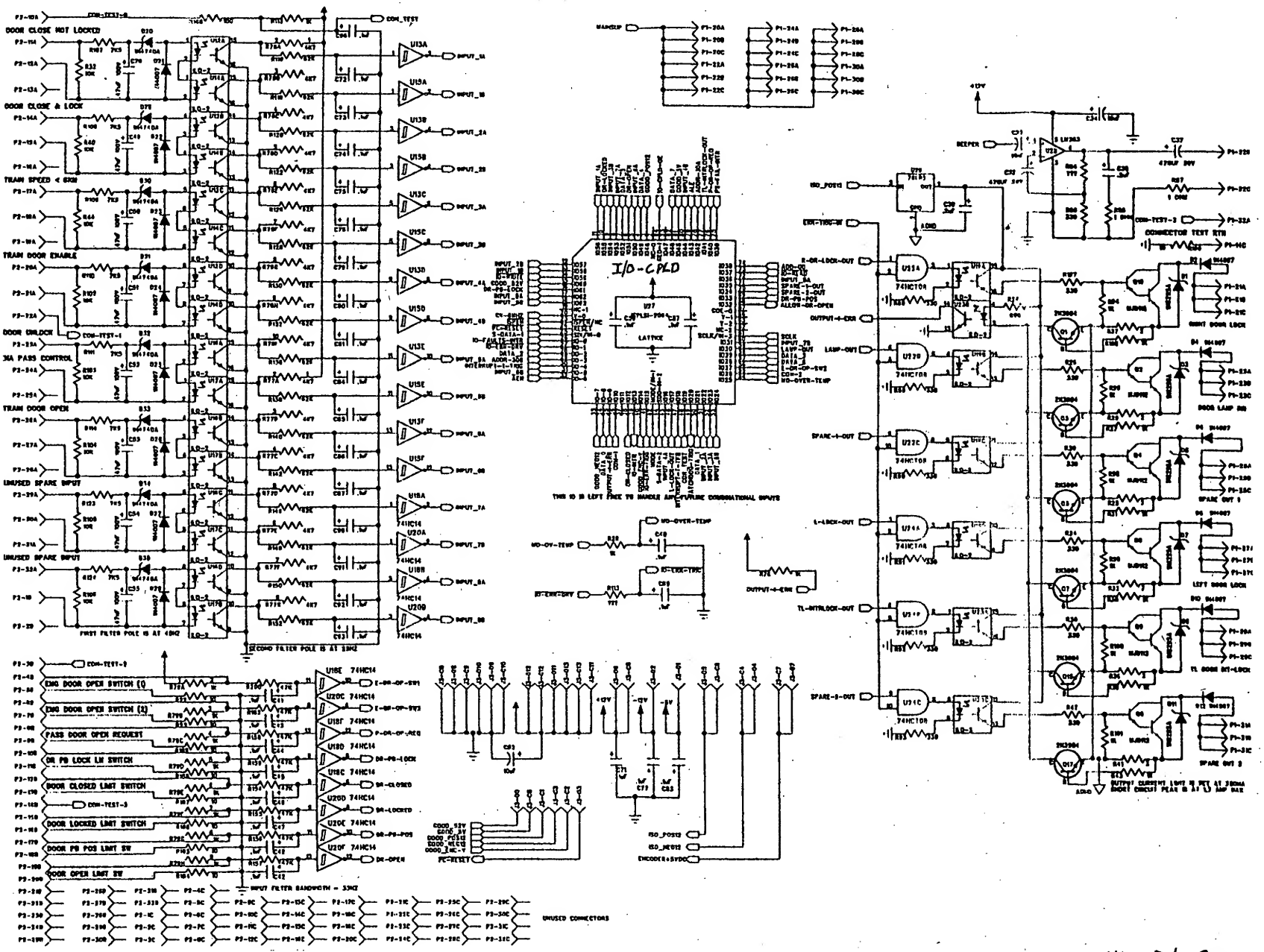
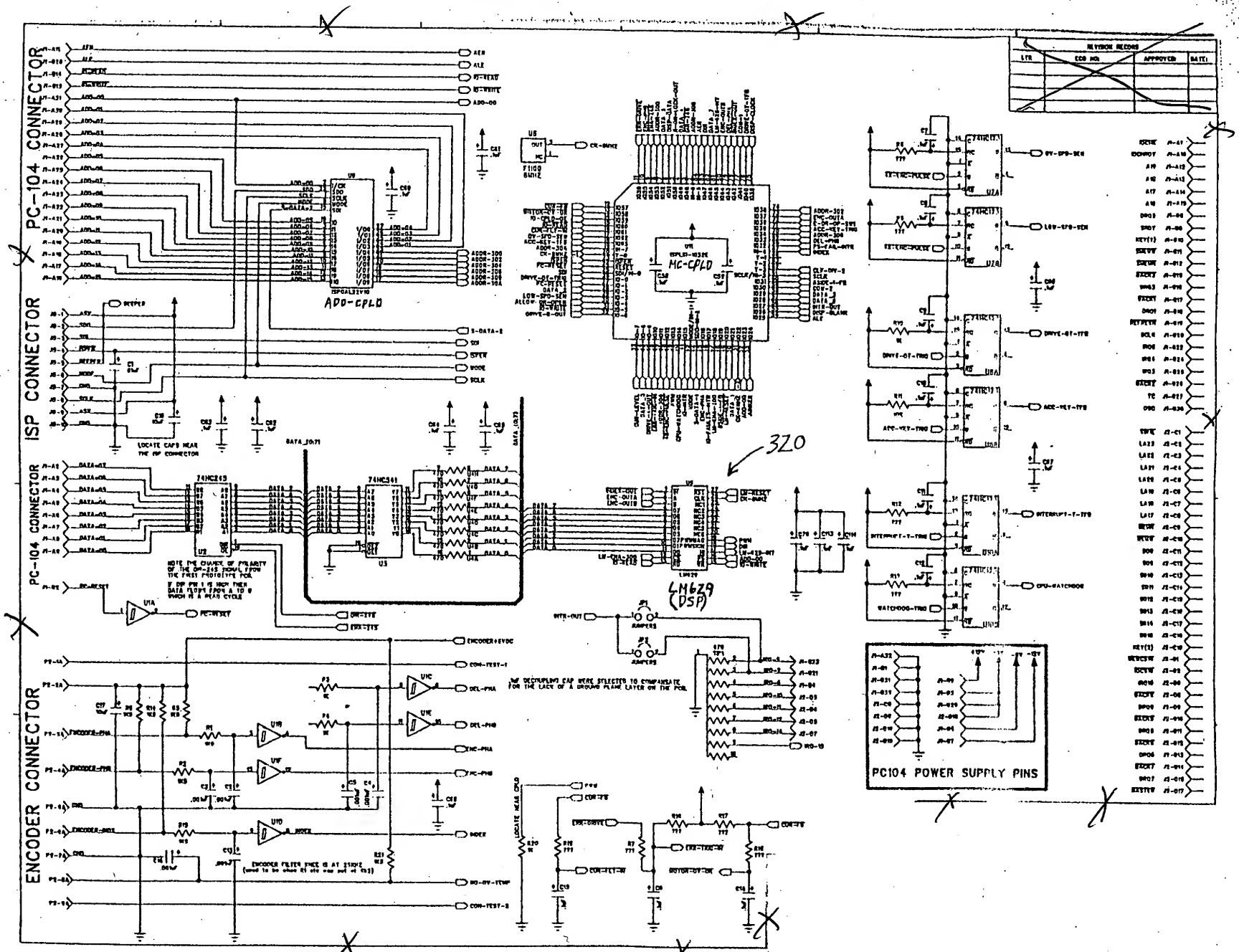
FIGURE 8A



MD - I/O CARD
LAYOUT 1

FIGURE 10B



MD-I/O CARD
LAYOUT 2

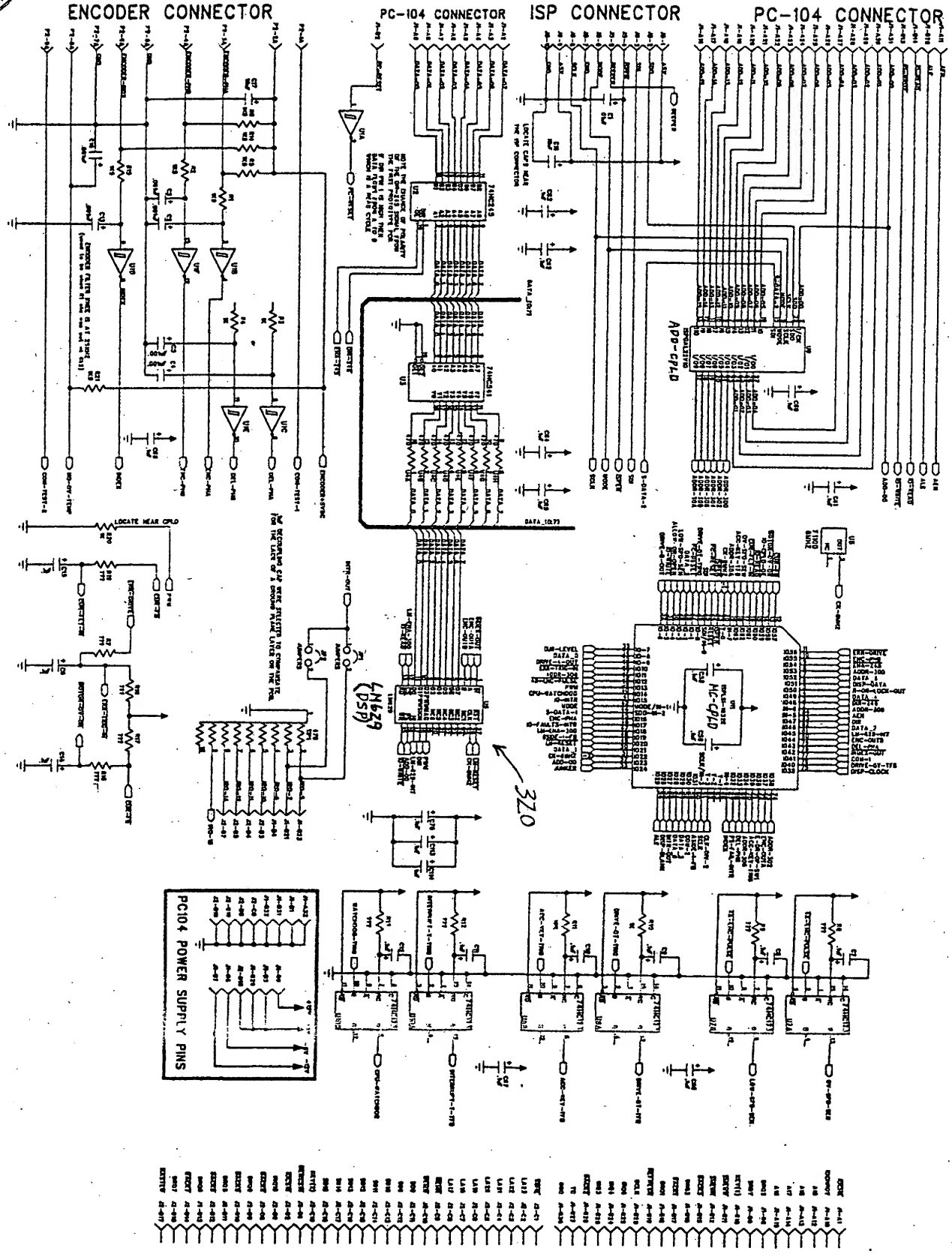


FIGURE 8 B

MD-IP CARD
LAYOUT 2

FIGURE 2C

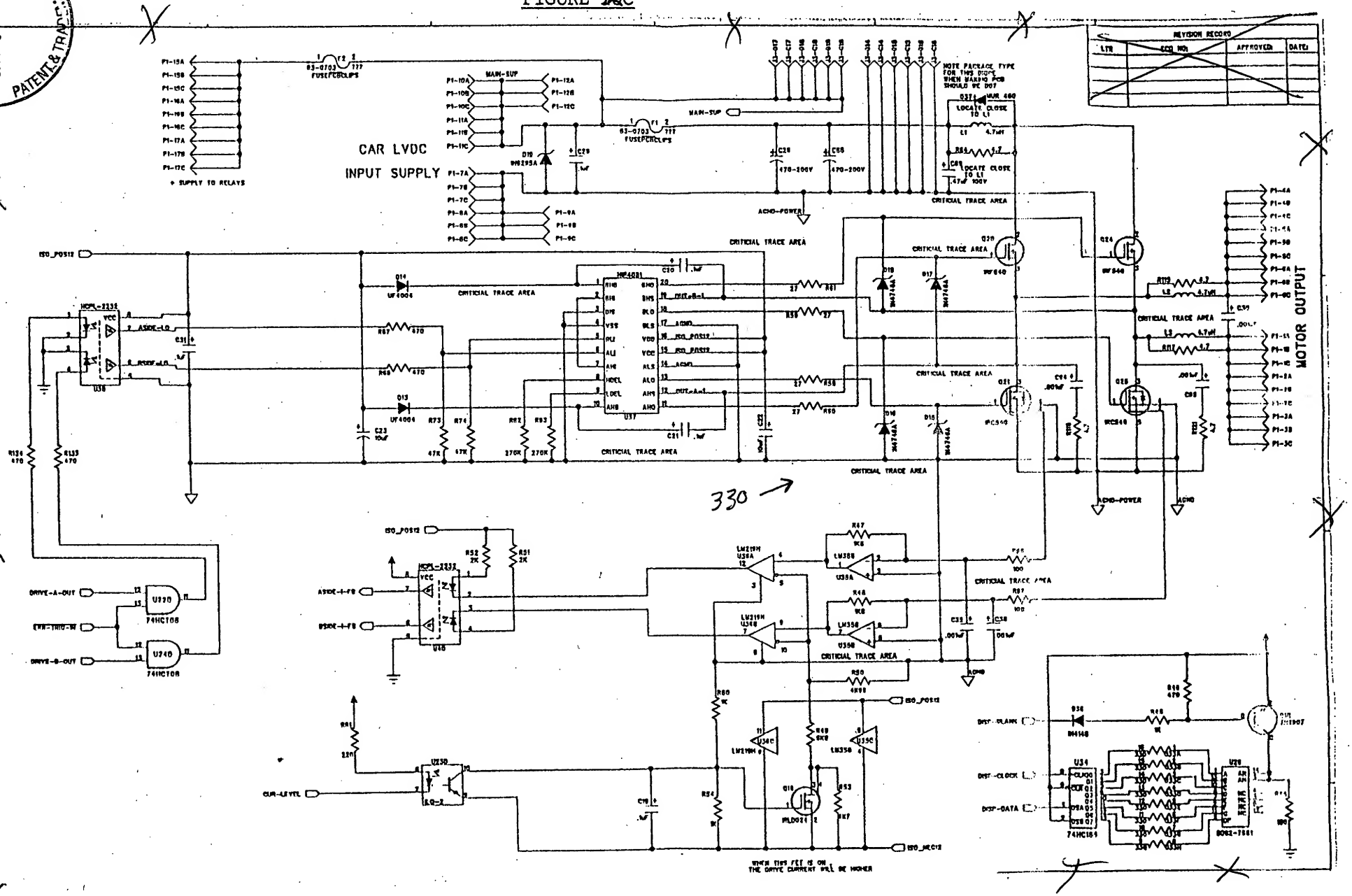


FIGURE 8 C

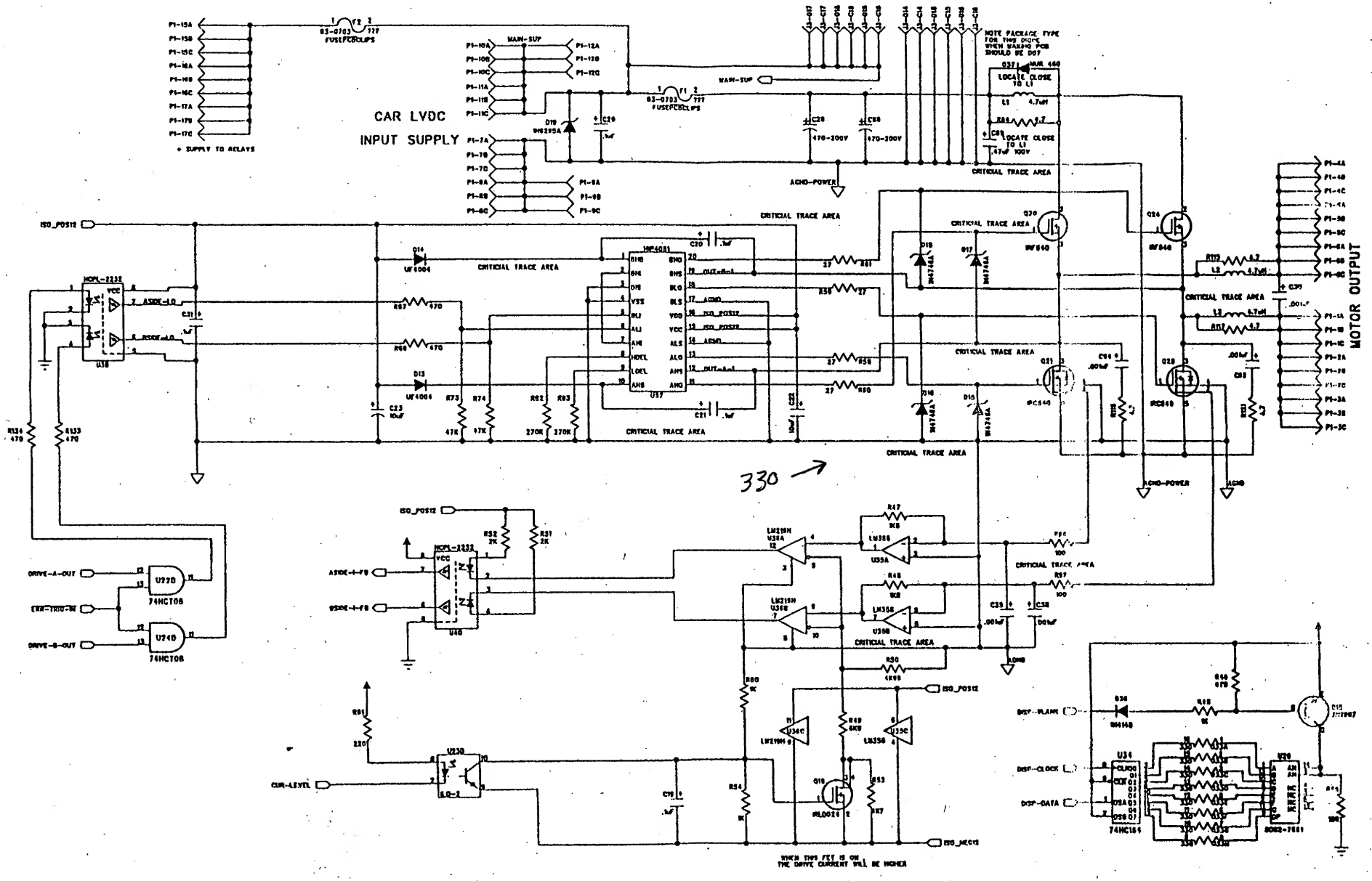


FIGURE ~~1~~ 6

310

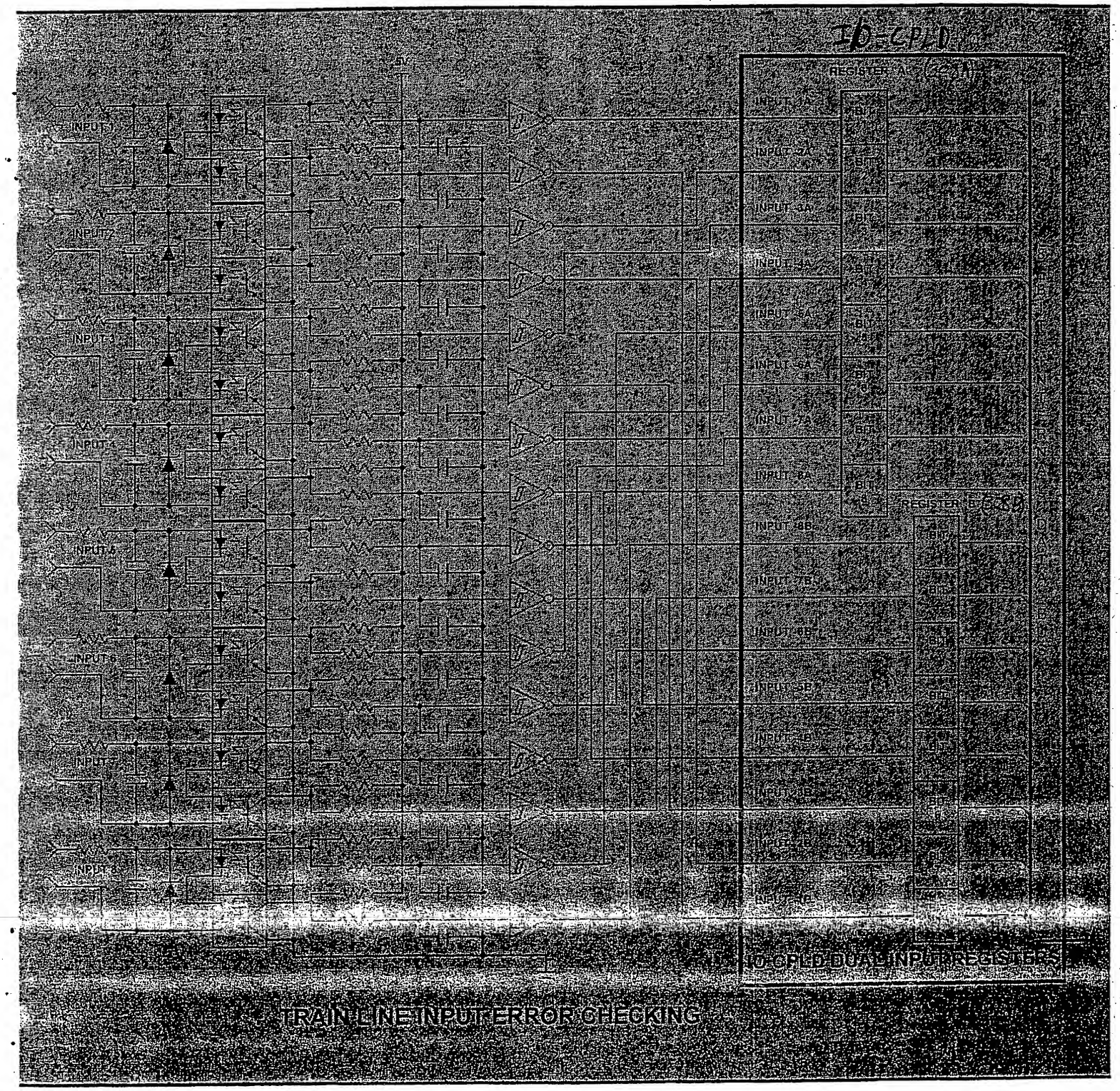


FIGURE 9

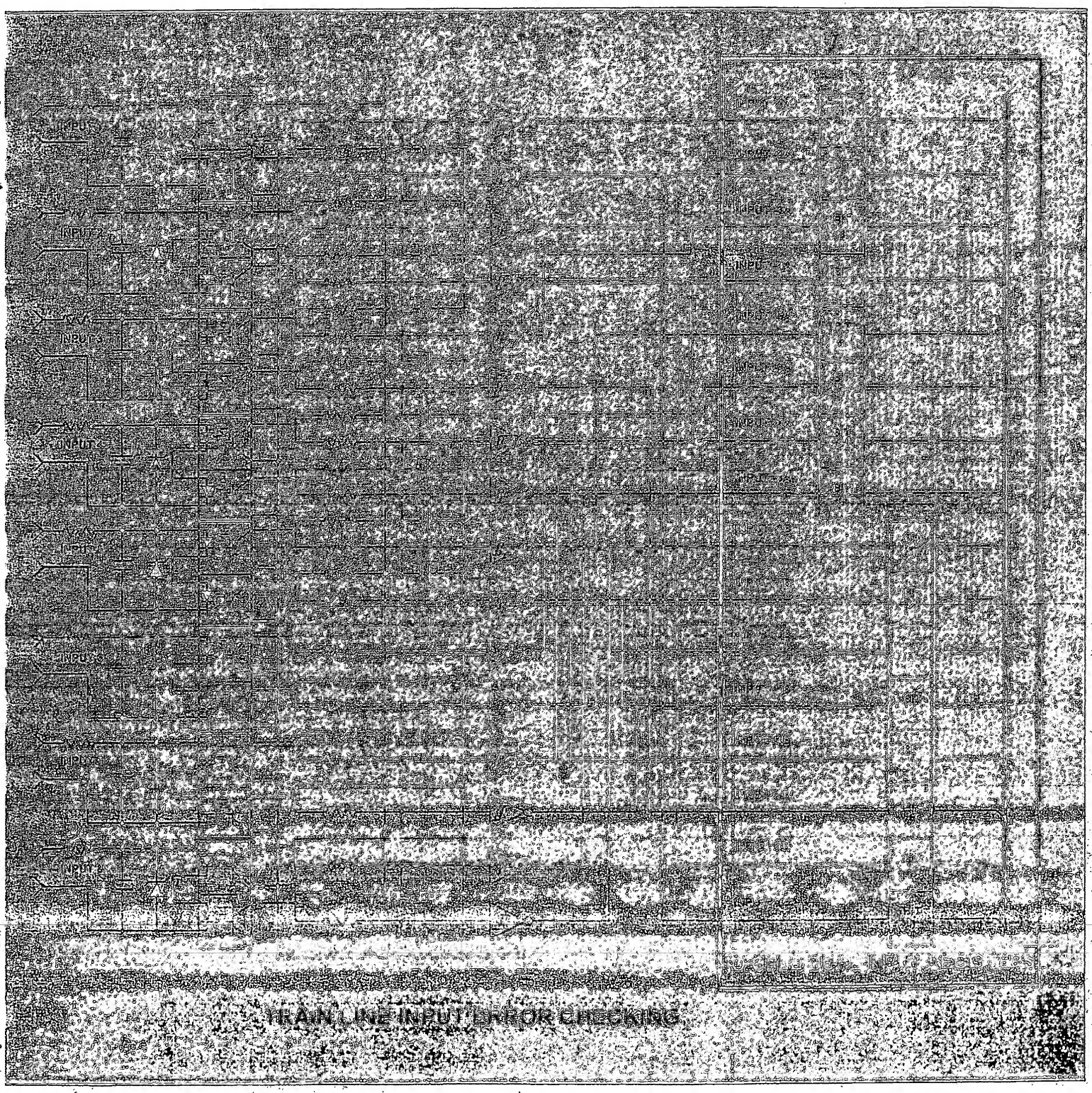
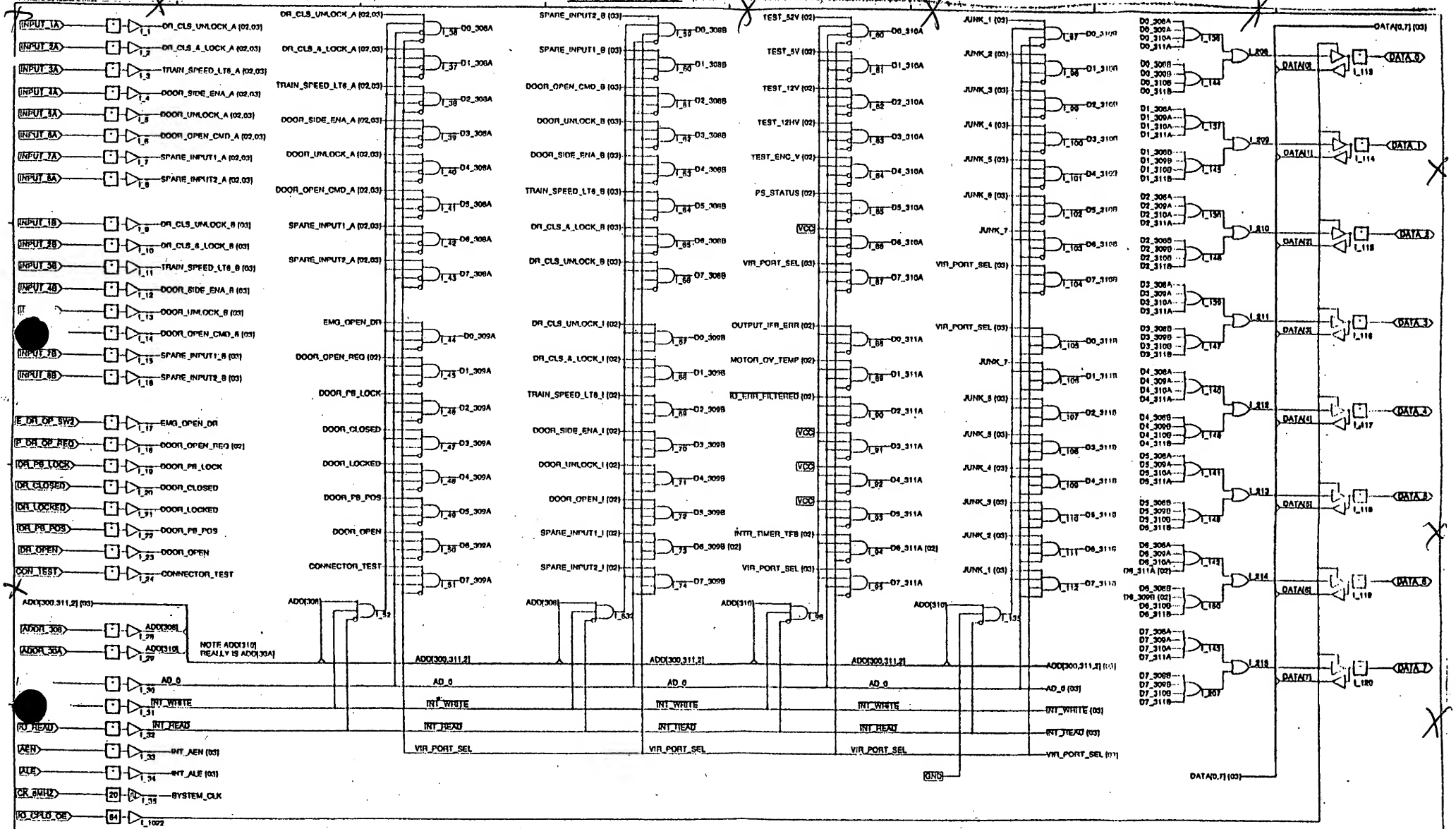
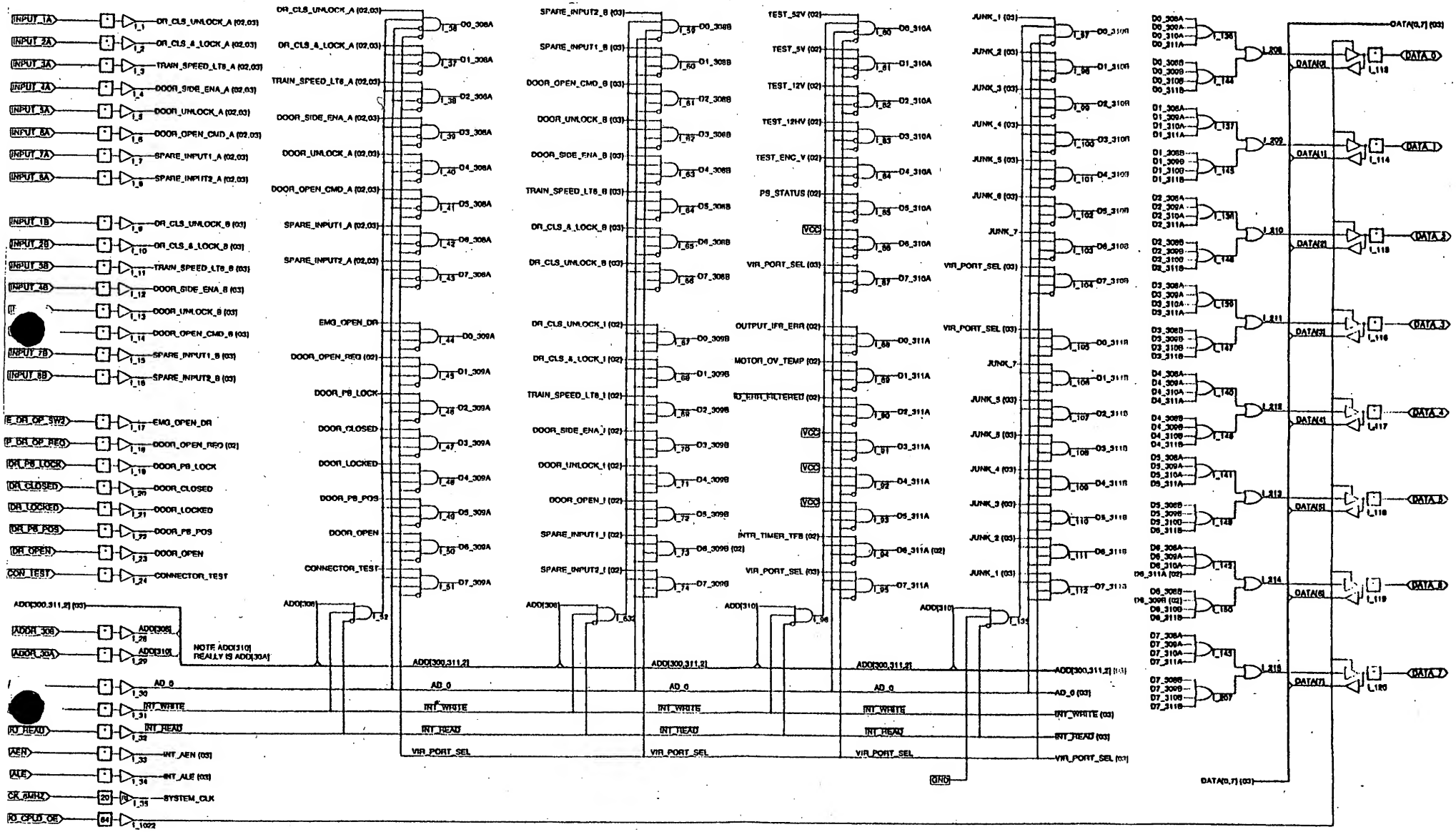


FIGURE 8A



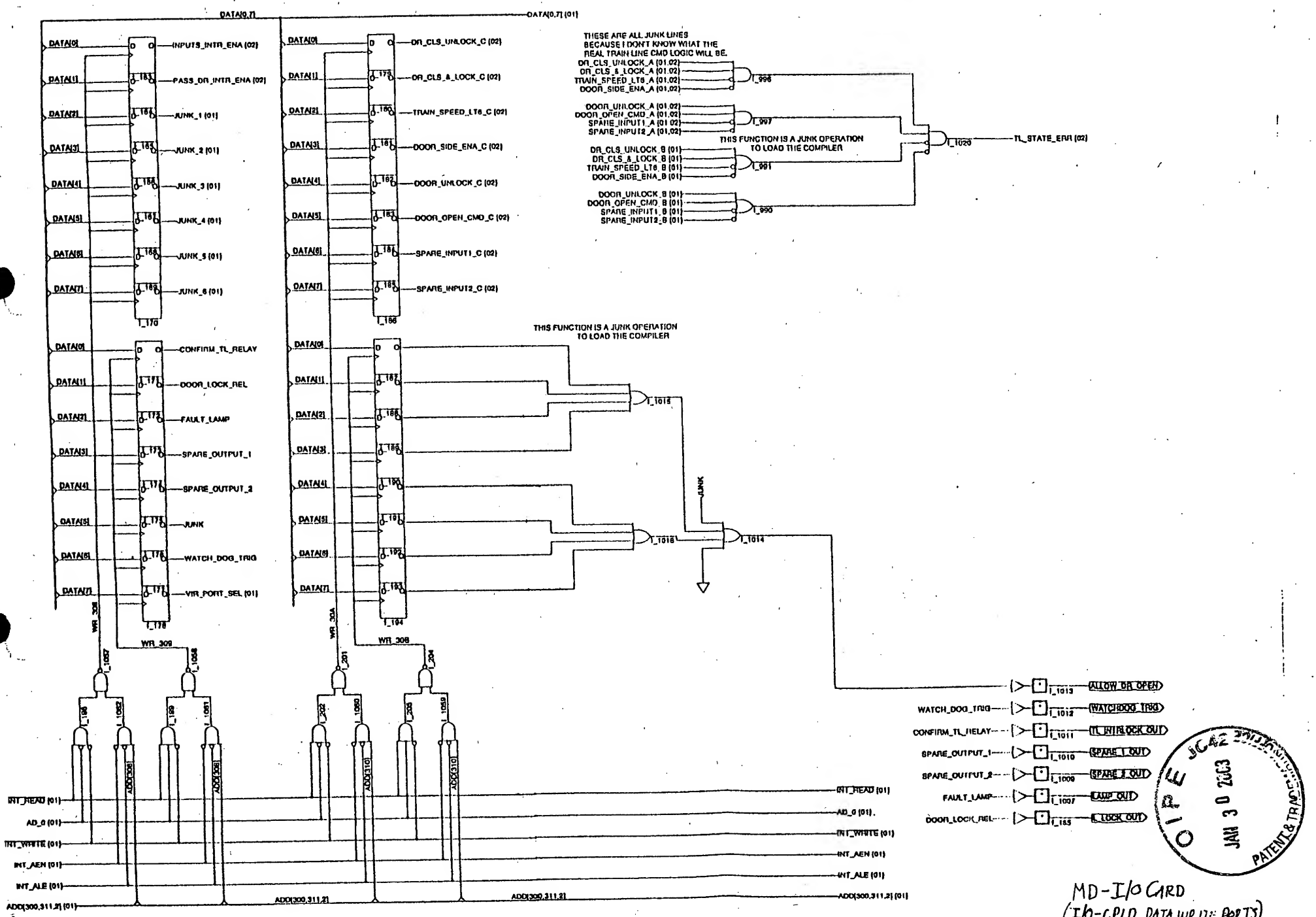
MD-I/O CARD
(I/O-CPLD DATA/ADDRESS CONTROL LOGIC)

FIGURE 10 A



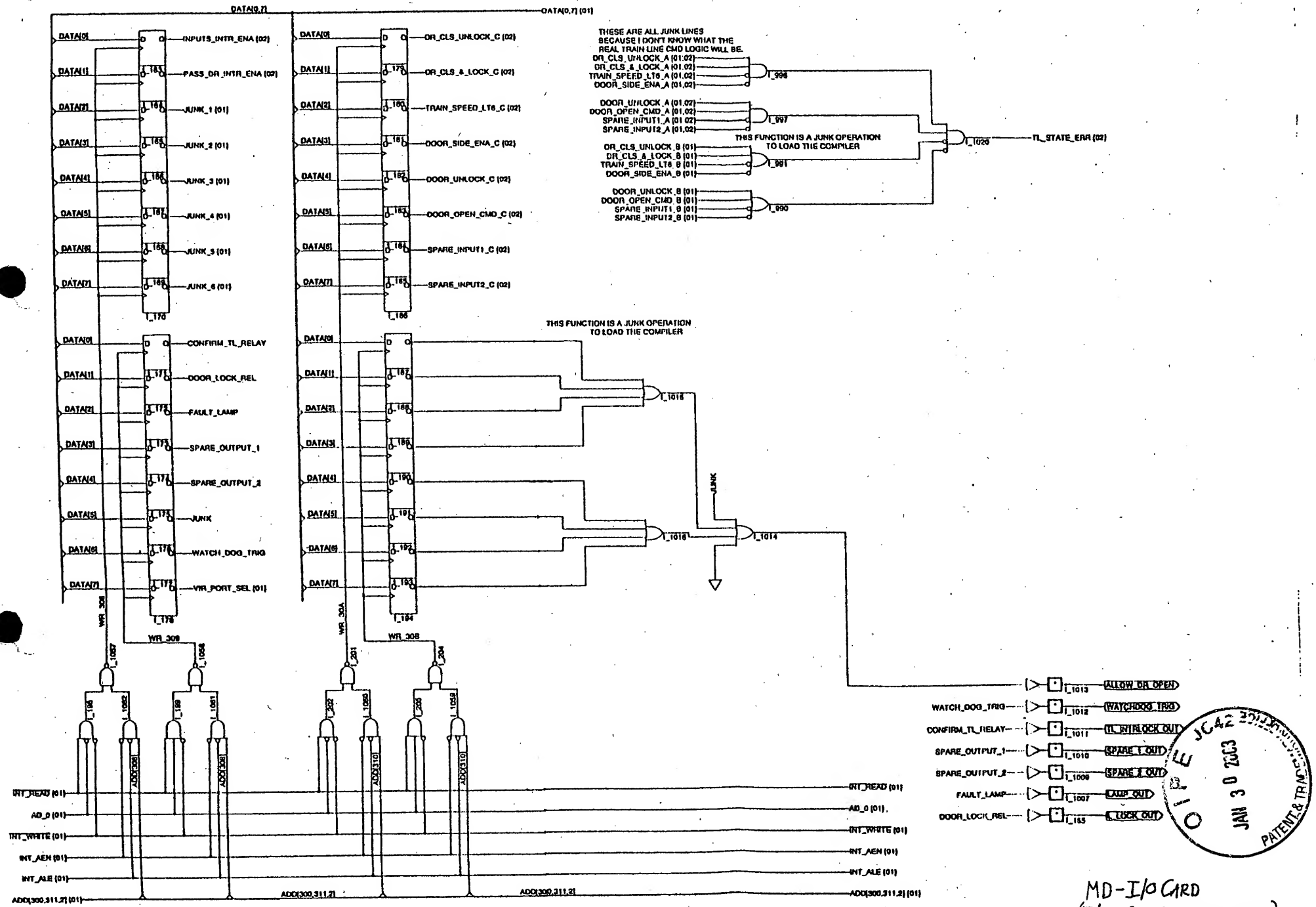
MD-I/O CARD
(I/O-CPLD DATA/ADDRESS CONTROL LOGIC)

FIGURE 2B



MD-I/O CARD
(I/O-CPLD DATA WRITE PORTS)

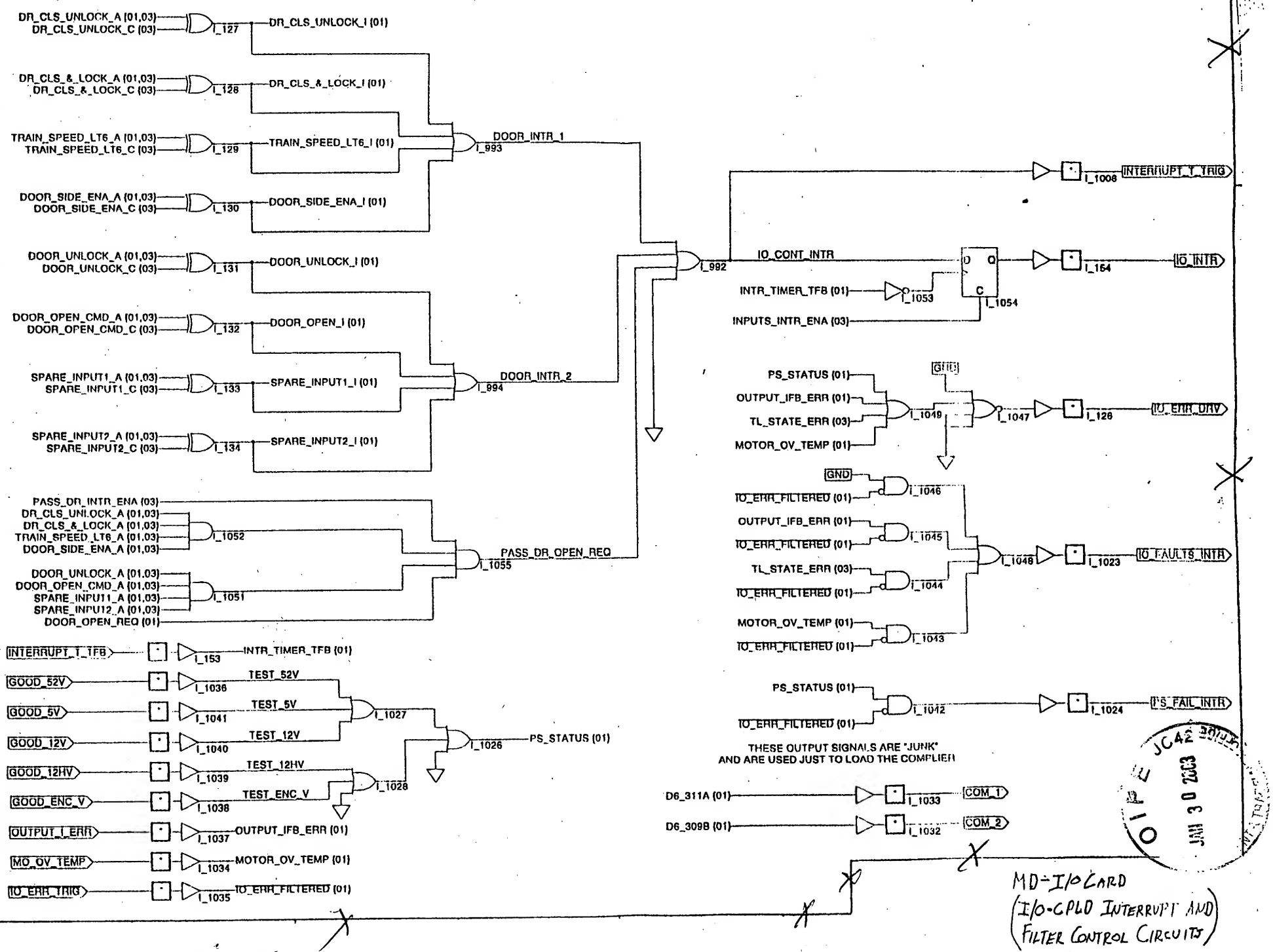
FIGURE 10 B



MD-I/O CARD
(I/O-CPLD DATA WRITE PORTS)

FIGURE 18C

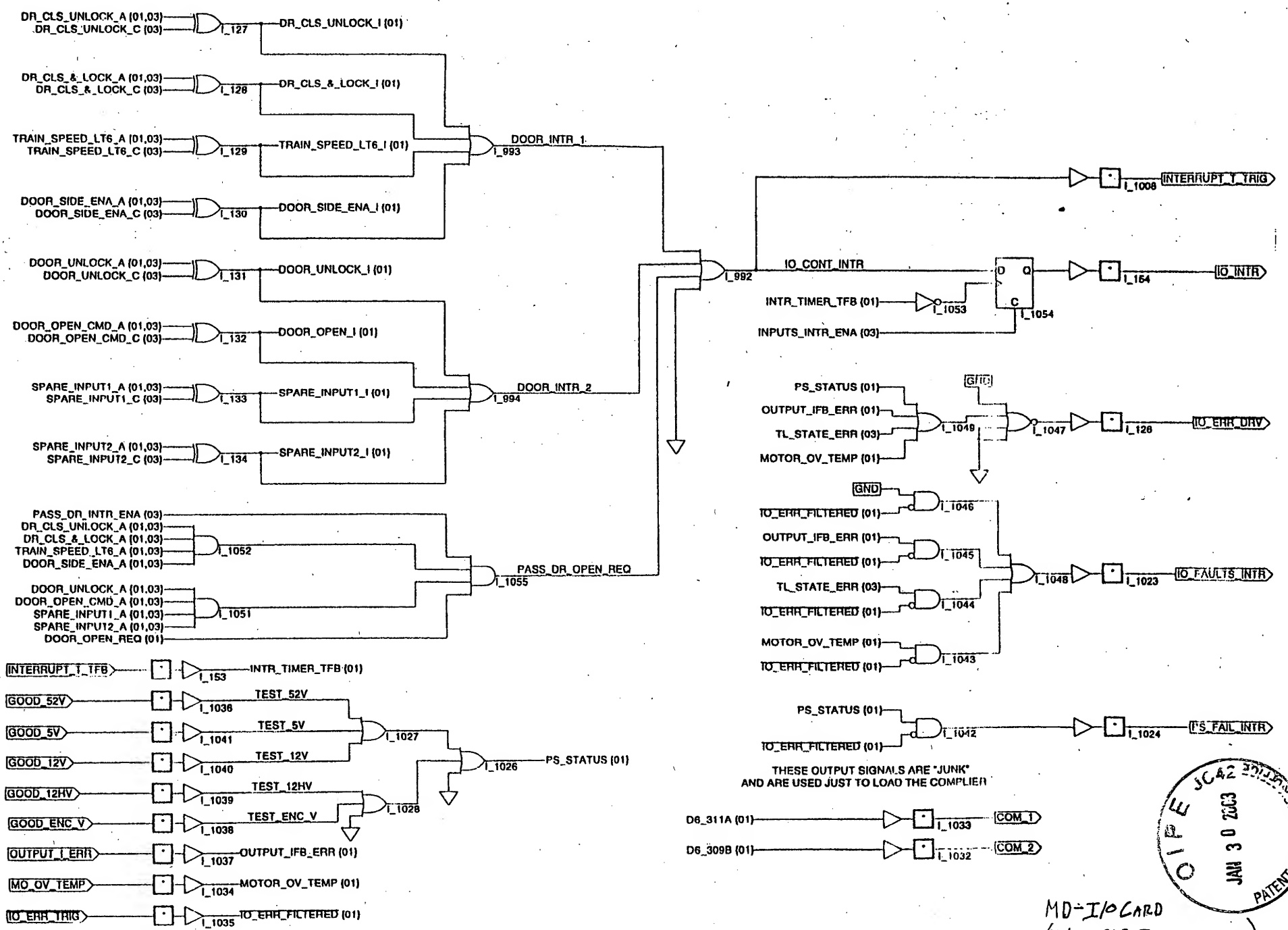
INTERRUPT AND FILTER CONTROL CIRCUITS



MD-I/O CARD
(I/O-CPLD INTERRUPT AND
FILTER CONTROL CIRCUITS)

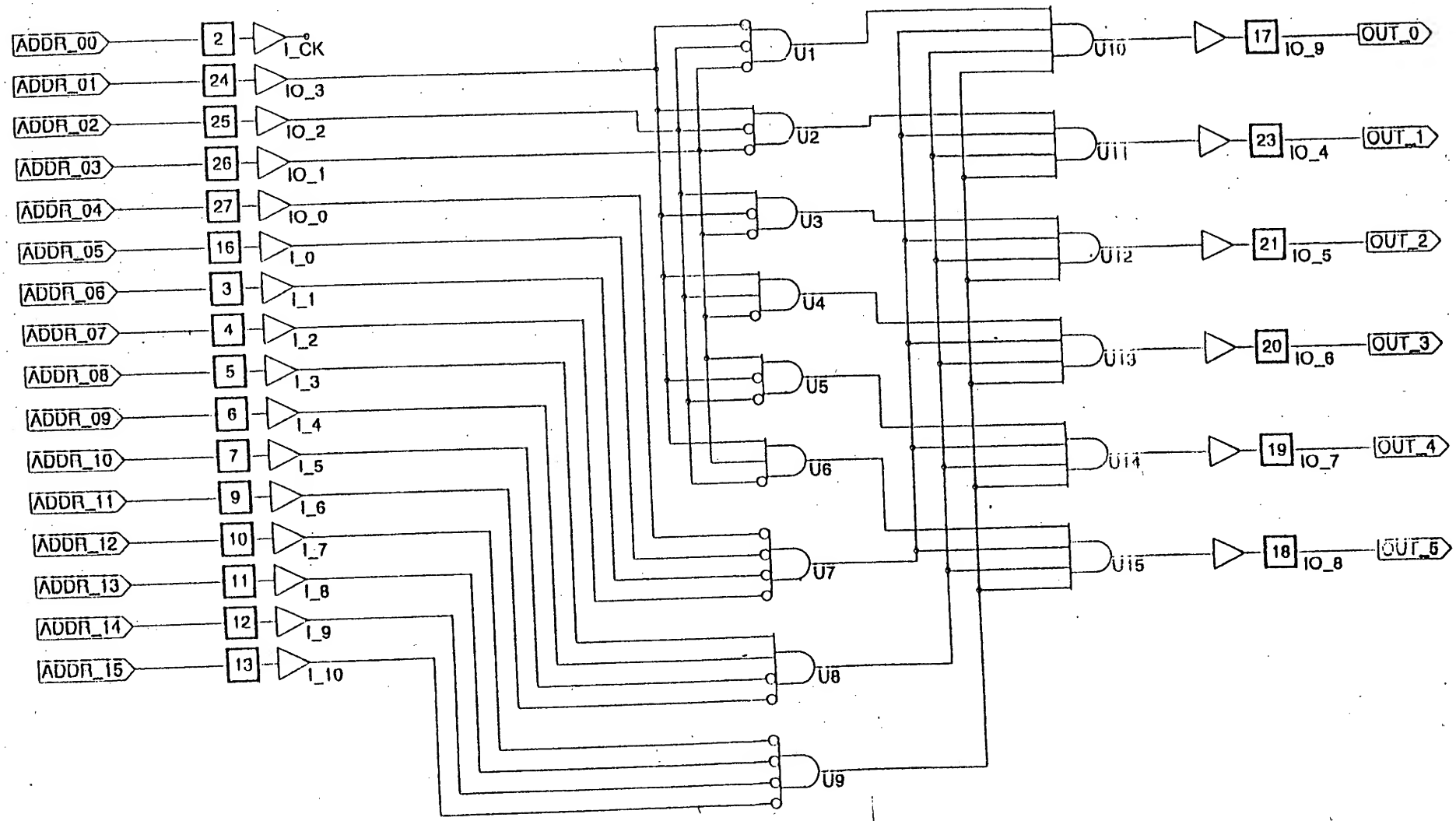
FIGURE 10C

INTERRUPT AND FILTER CONTROL CIRCUITS



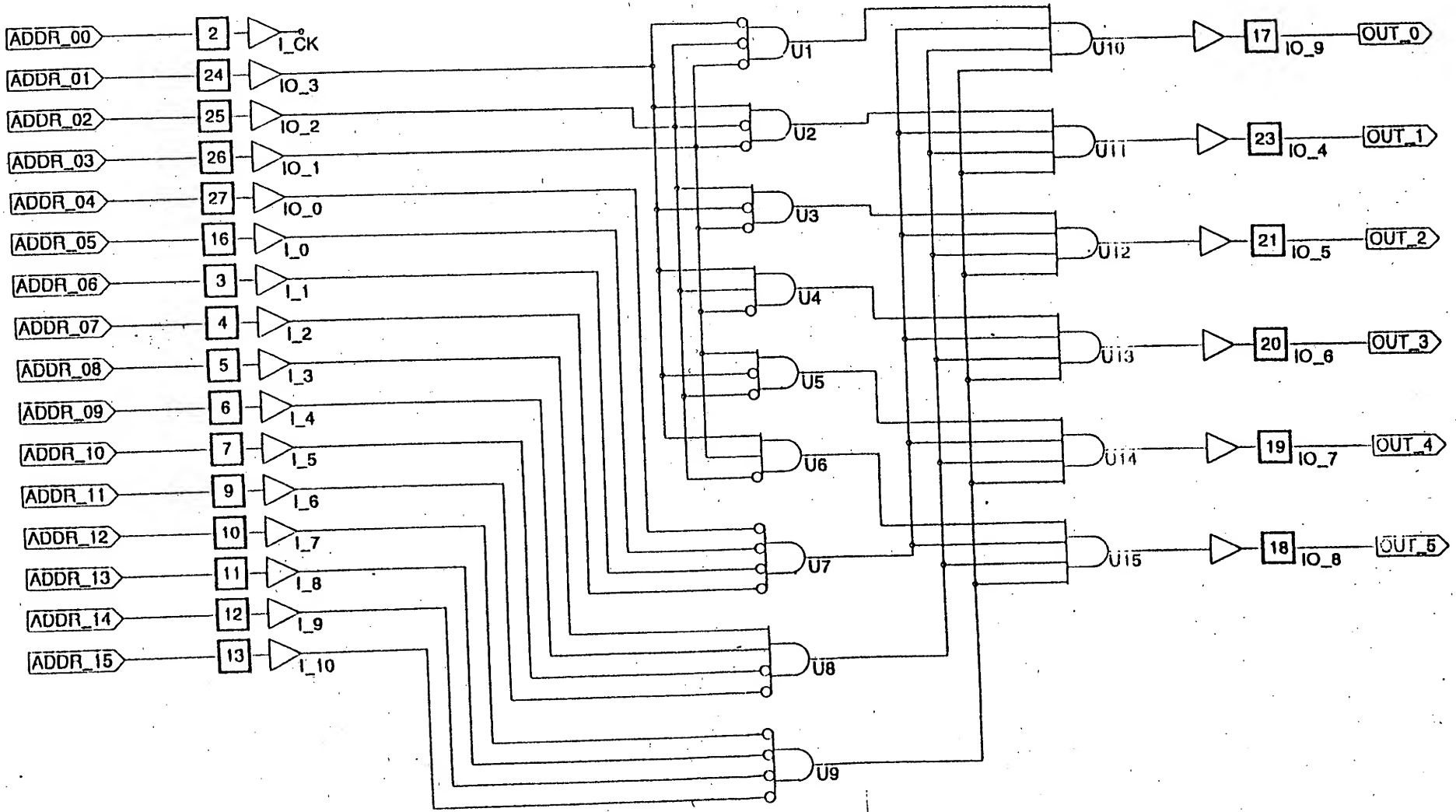
MD-I/O CARD
(I/O-CPLD INTERRUPT AND
FILTER CONTROL CIRCUITS)

FIGURE 13



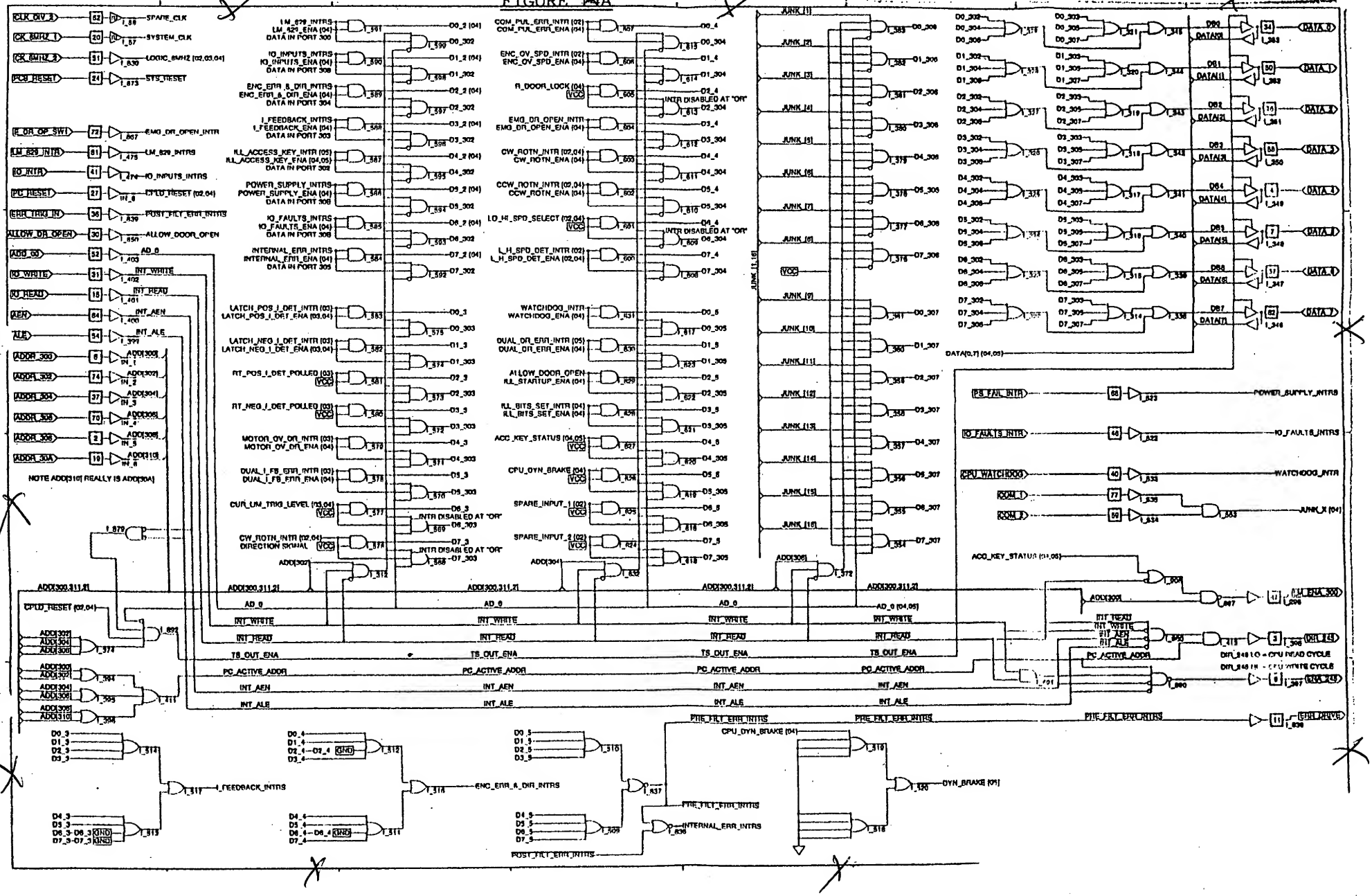
MD-I/O CARD
(ADD-CPLD LOGIC)

FIGURE 11



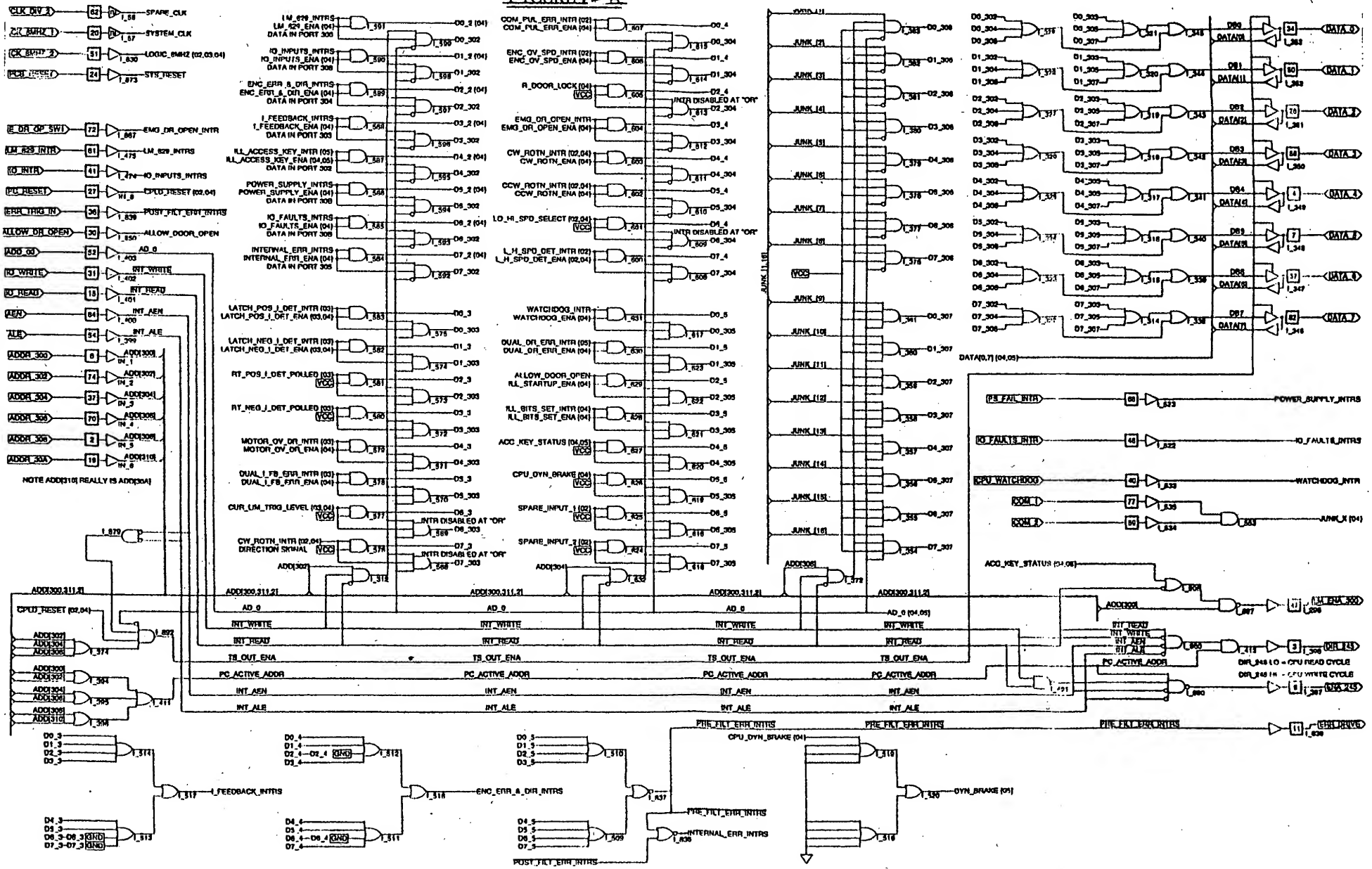
MD-I/O CARD
(ADD-CPLD LOGIC)

FIGURE 4A



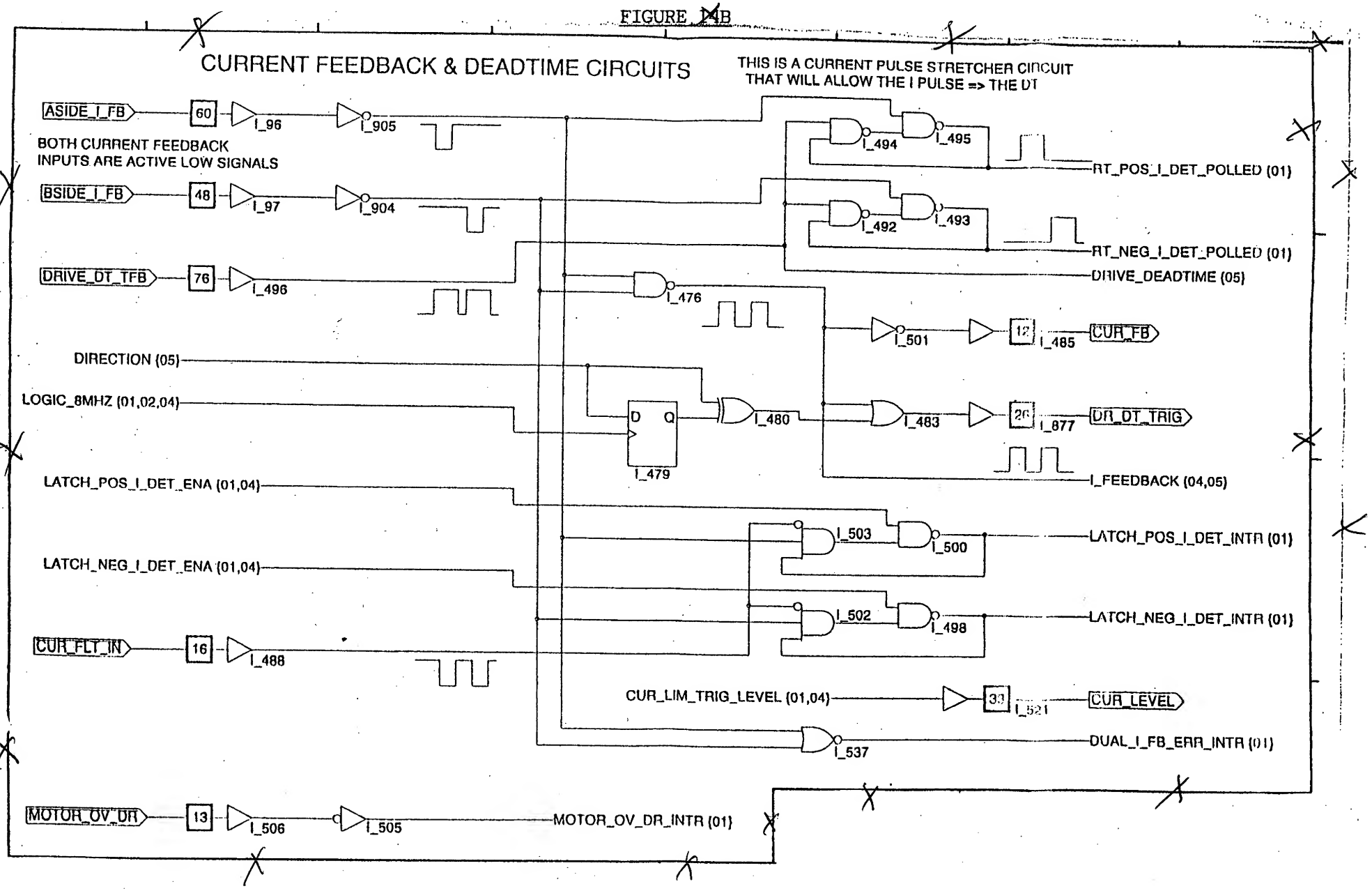
MD-I/O CARD
(MC-CPLD DATA/ADDRESS
CONTROL LOGIC

FIGURE 12 A



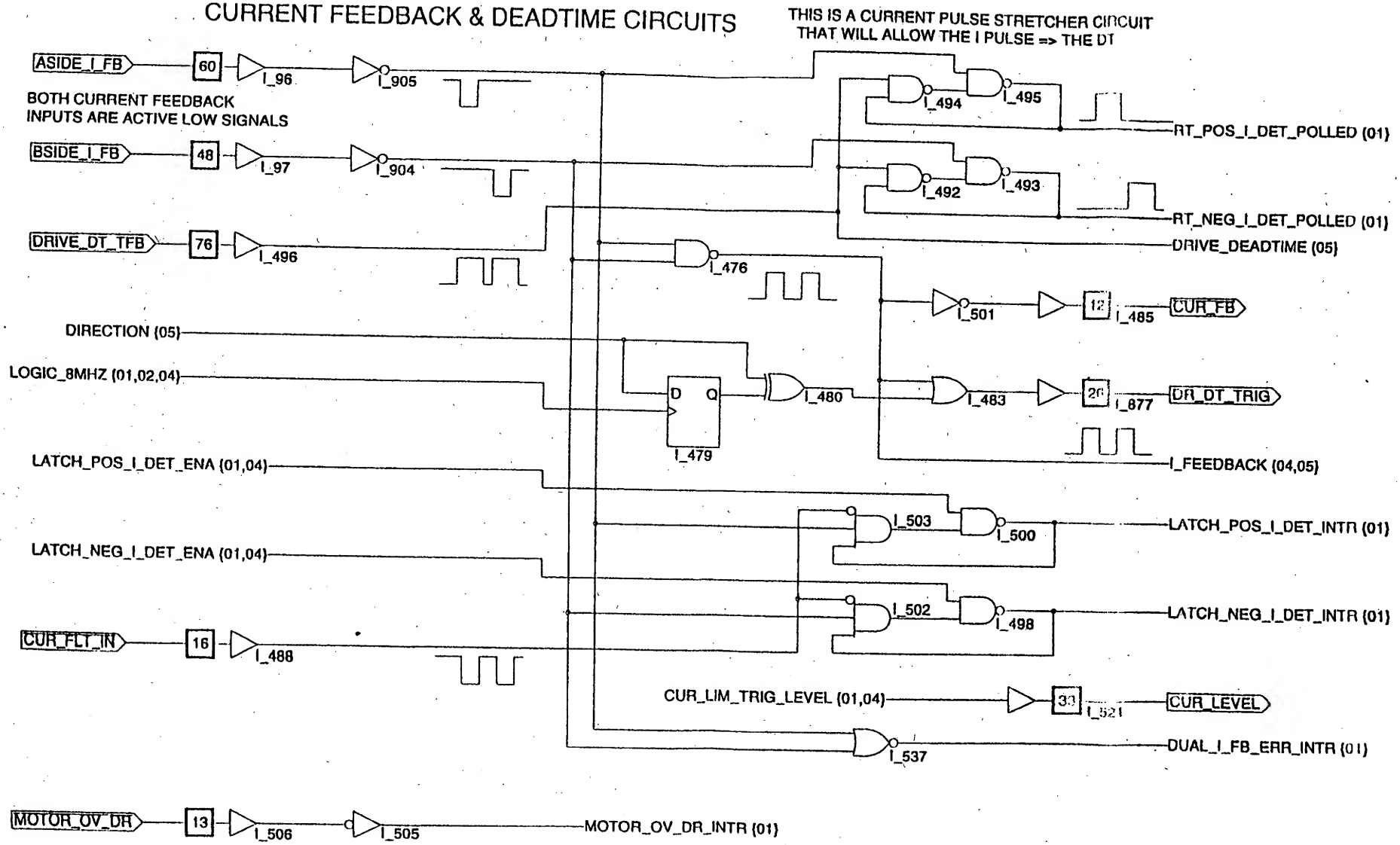
MD-I/O CARD
(MC-CPLD DATA/ADDRESS CONTROL LOGIC

FIGURE 14B



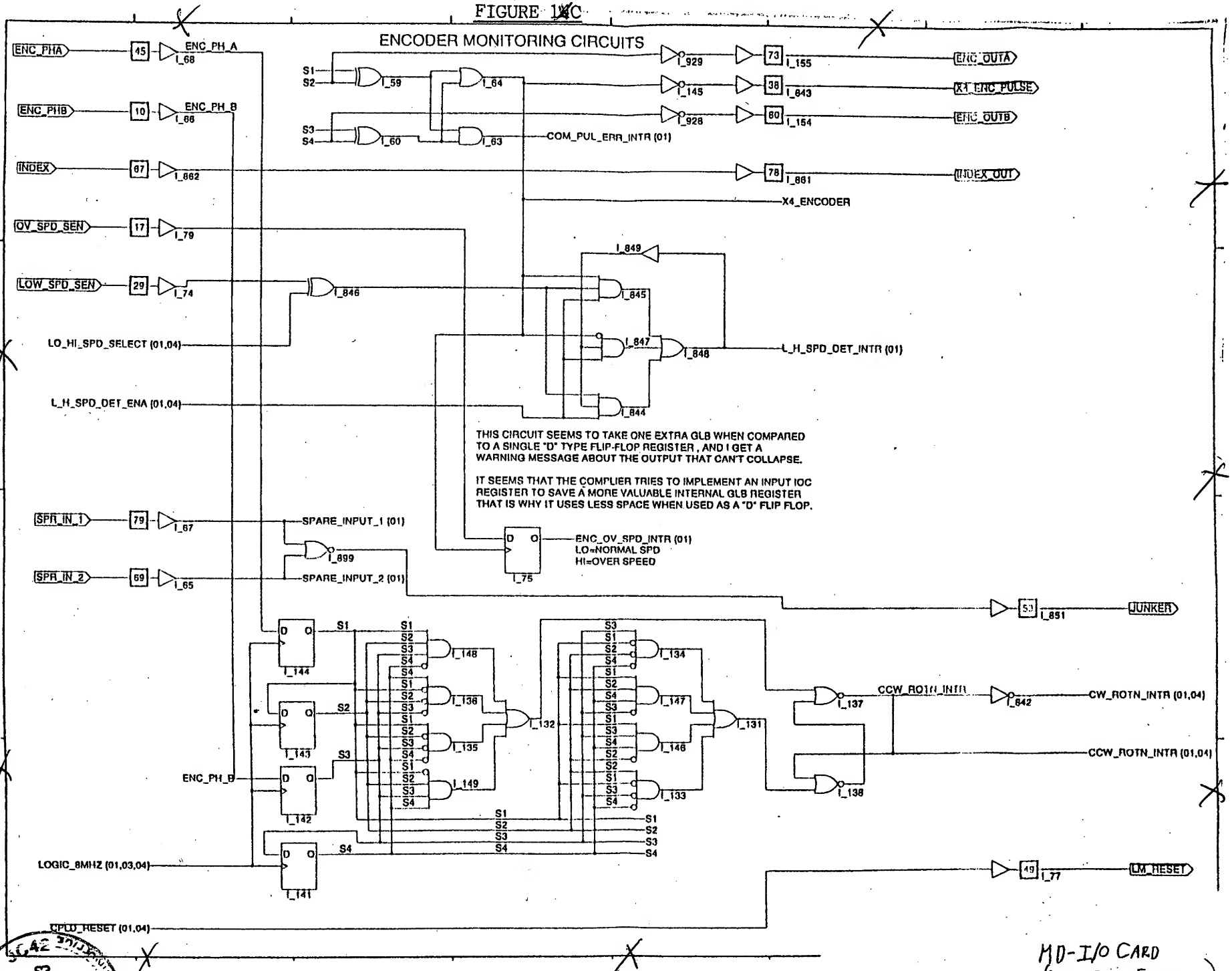
MD-I/O CARD
(MC-CPLD CURRENT FEEDBACK
AND DEADTIME CIRCUITS)

FIGURE 12B



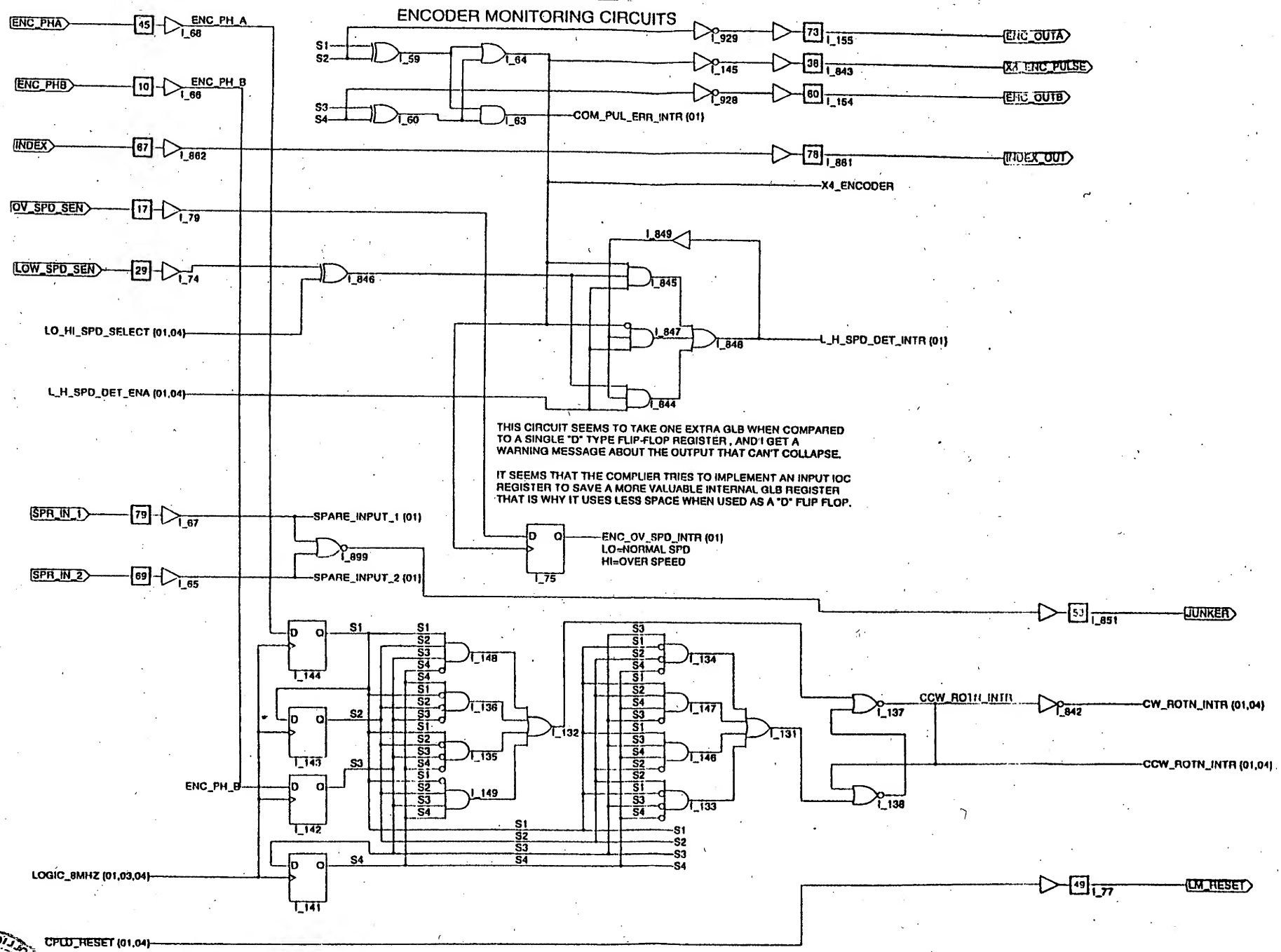
MD-I/O CARD
(MC-CPLD CURRENT FEEDBACK AND DEADTIME CIRCUITS)

FIGURE 1C



MD-I/O CARD
(MC-CPLD ENCODER MONITORING CIRCUITS)

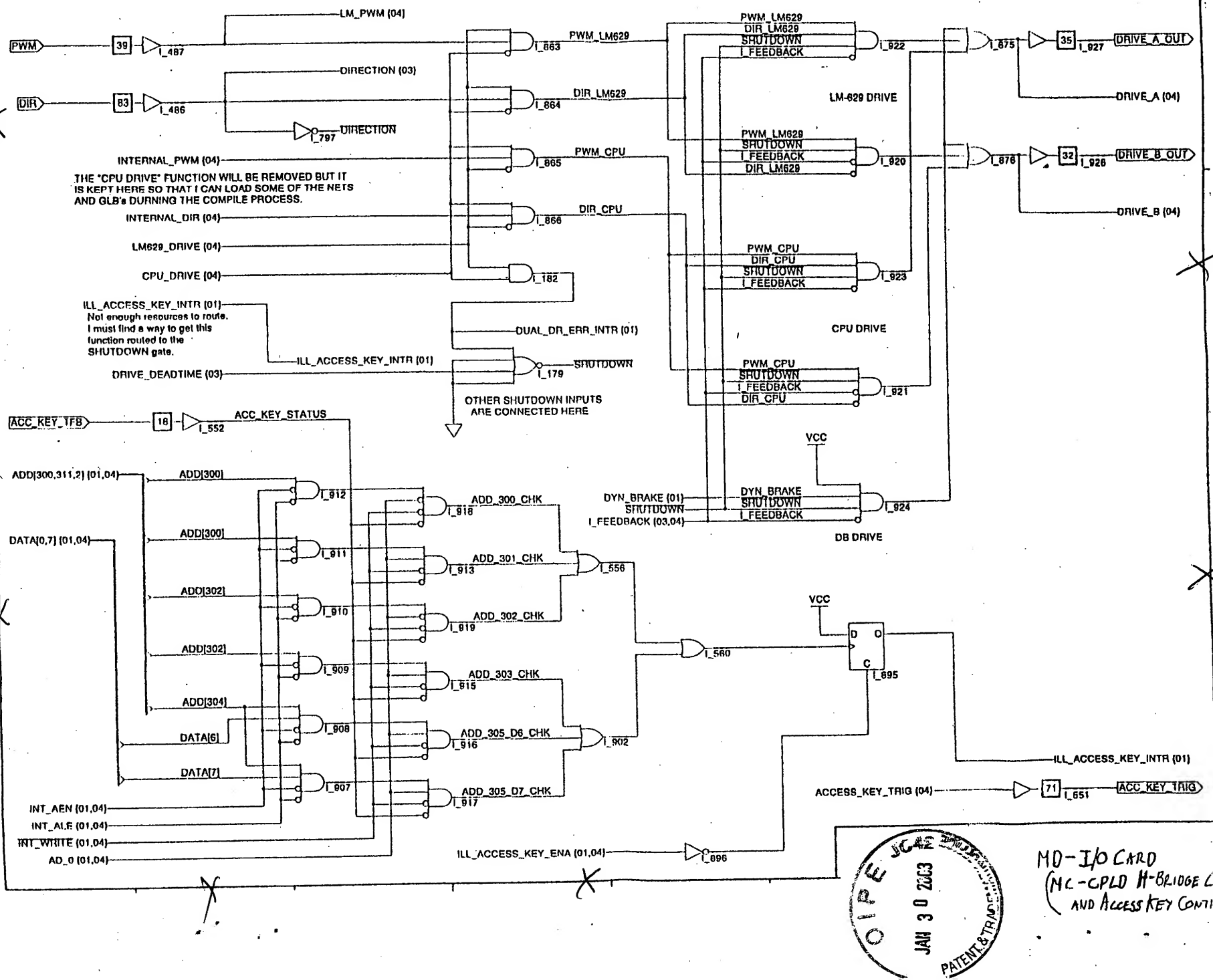
FIGURE 12C



MD-I/O CARD
(MC-CPLD ENCODER MONITORING CIRCUITS)

FIGURE 1MD

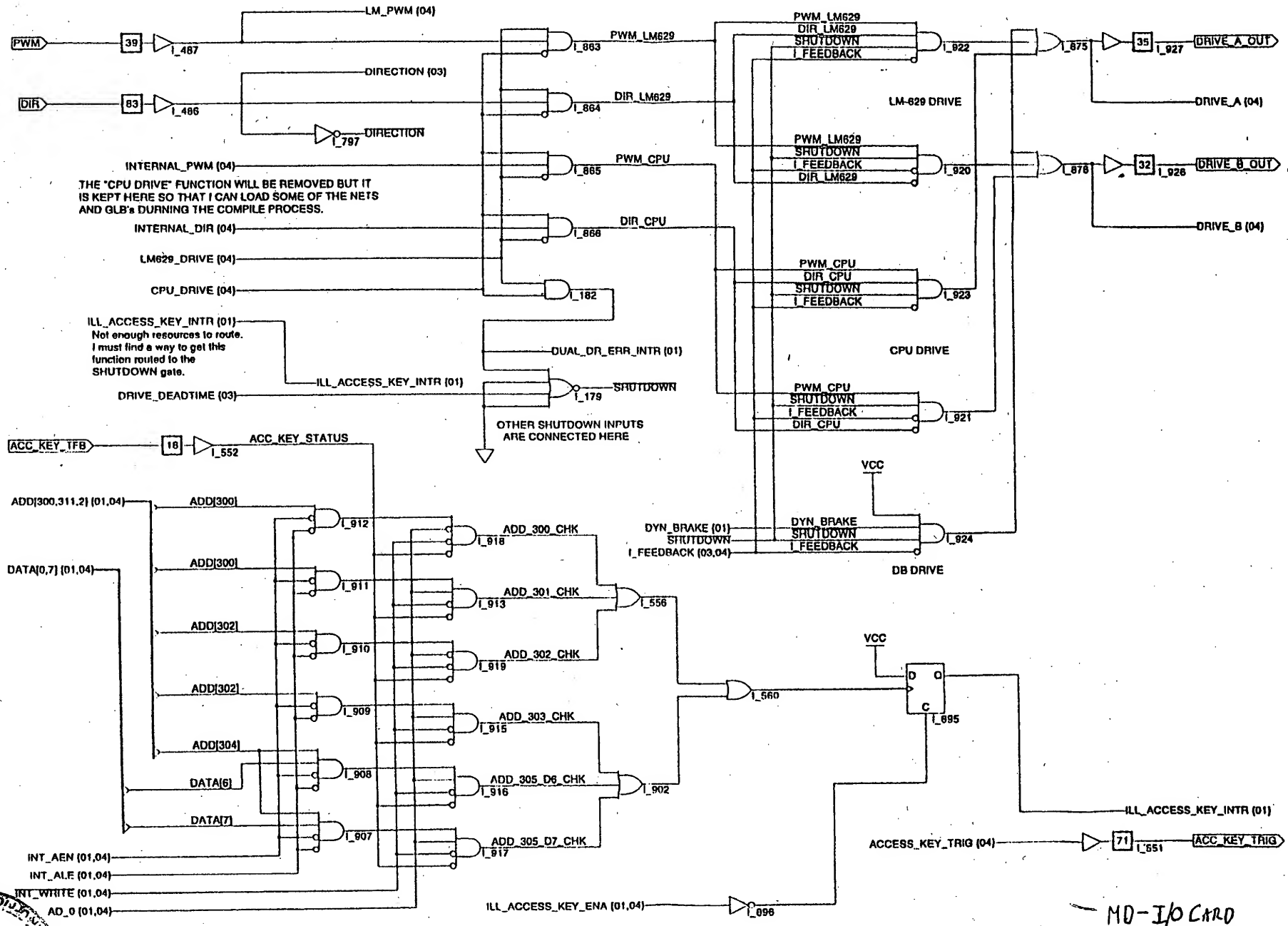
"H" BRIDGE & ACCESS KEY CONTROL CIRCUITS



MD-I/O CARD
(MC-CPLD H-BRIDGE CONTROL
AND ACCESS KEY CONTROL

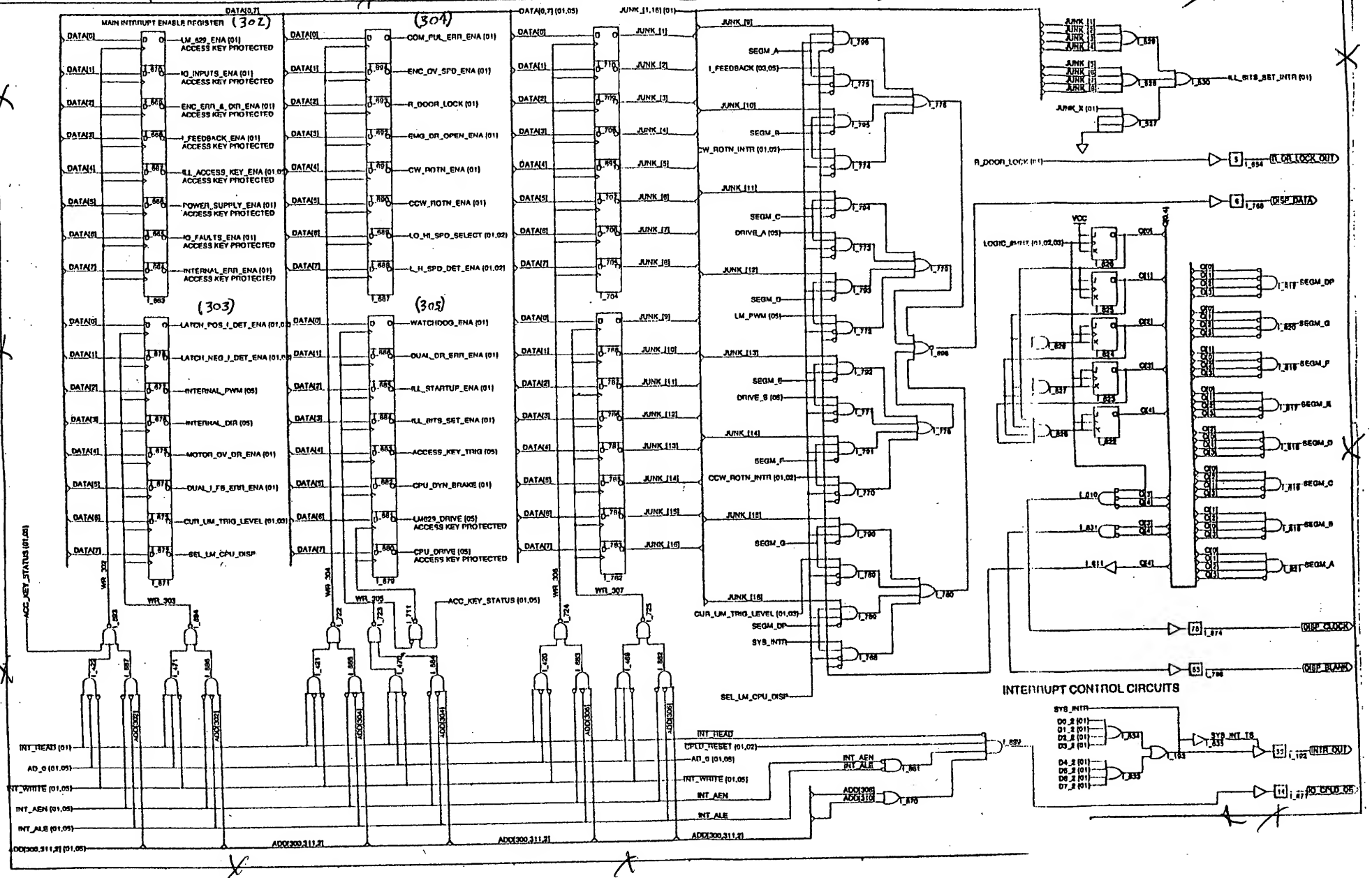
FIGURE 12D

"H" BRIDGE & ACCESS KEY CONTROL CIRCUITS



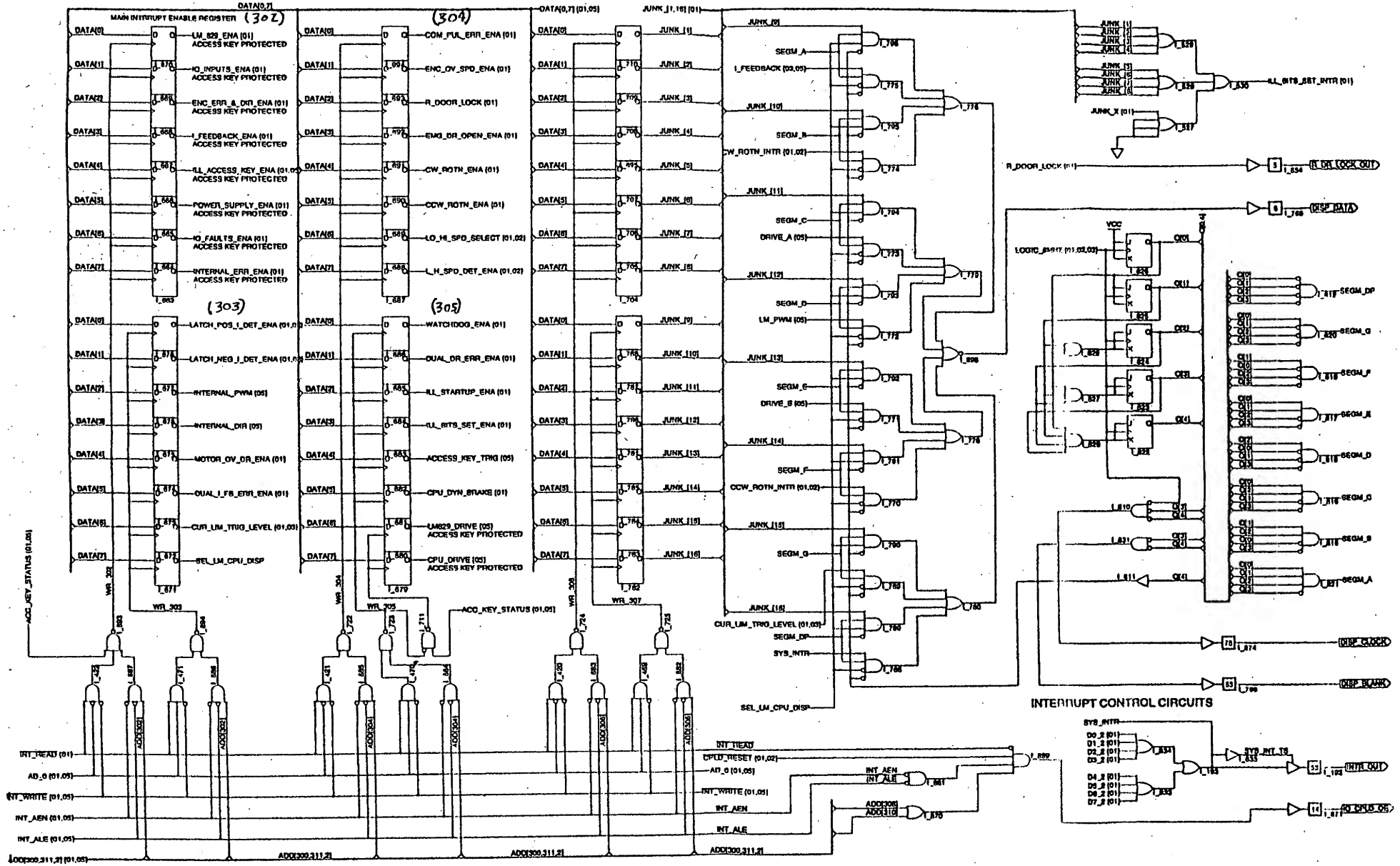
MD-I/O CARD
(MC-CPLD H-BRIDGE CONTROL AND ACCESS KEY CONTROL

FIGURE 1E



MD-IO CARD
(MC-CPLD INTERRUPT CONTROL LOGIC)

FIGURE 12E.



MD-IO CARD
(MC-CPLD INTERRUPT CONTROL LOGIC)